A STUDY TO ASSESS THE EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION ON KNOWLEDGE AND ATTITUDE REGARDING ORGAN DONATION AMONG THE ARTS STUDENTS AT SELECTED ARTS AND SCIENCE COLLEGES, THANJAVUR DISTRICT.

BY

REG. NO: 301412451

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY, CHENNAI-32 IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL– 2016

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BY

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SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER SCIENCE IN NURSING FROM THE TAMILNADU DR.M.G.R.MEDICAL UNIVERSITY, CHENNAI.

APRIL– 2016

DECLARATION

I hereby declare that this dissertation entitled "**A study to assess the effectiveness Of Computer Assisted Instruction On knowledge And attitude regarding organ donation among the arts students at selected Arts and Science Colleges, Thanjavur"** outcome of the original research work undertaken and carried out by me, under the guidance of research guide **Prof. Mrs.VANITHA INNOCENTRANI, M.Sc(N)., Ph.D.,** Professor cum Principal, and **Mrs.IRAIMANI, M.Sc(N),** Vice-Principal, Medical Surgical Nursing Department, Our Lady Of Health College Of Nursing, Thanjavur.

I hereby declare that the material of this has not found in any way, the basis for the award of any degree / diploma in this university or any other university.

301412451

CERTIFICATE

CERTIFIED THAT THIS IS THE BONAFIDE WORK OF

301412451

AT OUR LADY OF HEALTH COLLEGE OF NURSING,

THANJAVUR.

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING FROM

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I express my special thanks to **Mrs. Jayanthi M.sc(N).,** Medical Surgical Department, who worked behind the screen, imparted the knowledge regarding project spend her precious time in guidance and her contribution helped me to complete my project successfully.

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I extend my heartfelt thanks to all my colleagues for their help.

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LIST OF ABBREVIATIONS

SHORT FORMS	ABBREVIATIONS
Dt	District
CAI	Computer Assisted Instruction
H_1	Research Hypothesis
M.Sc. (N)	Master Of Science in Nursing
No	Number
N	Number of samples
F	Frequency
%	Percentage
SD	Standard deviation
χ^2	Chi-square
Fig	Figure
*	Not significant
**	Significant

COMPUTER ASSISTED INSTRUCTION

ON

ORGAN DONATION

COMPUTER ASSISTED INSTRUCTION

ORAGAN DONATION

Name of the Teacher	**:** Ms.M.Mohana
Topic	**:** Organ Donation
Group	**:** Final Year B.A English Students.
Number of the Students	**:** 40
Duration	**:** 1 hour
Medium of Instruction	**:** English
Method of Teaching	**:** Lecture Cum Discussion
Audio Visual Aids	**:** LCD

GENERAL OBJECTIVE:

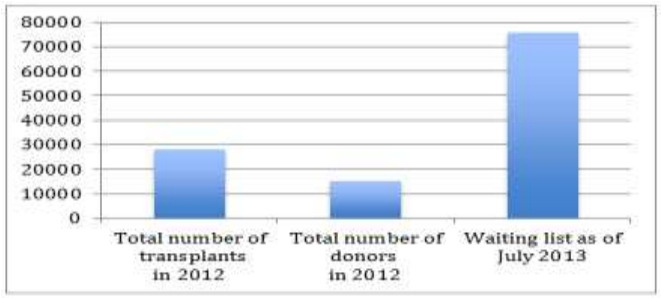
At the end of the instruction the students may gain knowledge about the organ donation and develop positive attitude towards organ donation.

SPECIFIC OBJECTIVES:

At end of the instruction,

- define organ donation.
- enlist the types and alternative organs sources of donors.
- list out the modes and types of transplantation.
- identify the major organ and tissue transplanted.
- mention the organ donor criteria.
- explain the brain death
- identify the recipients of needed organs.
- describe the organ donation during pregnancy
- list out the screening test for organ donation.
- enumerate the contraindications of organ donation.
- describe the transplant rejection and their treatment.
- explain the law and rules governing organ donation and transplantation.
- enlist the legal and ethical issues in organ donation

S.NO	Duration	Specific objectives	Content	Teachers activities	Learners activities
1.	2mts		**INTRODUCTION :** Life is a dynamic process. It starts from birth and ends with the death of individual. In between come different stages of life with different disease and their attendant problems. The body is the site of increasing disputes relating to the collection and distribution of human tissues and organs. Dr. Joseph E. Murray, at center facing camera, is seen performing the first successful organ transplant on Dec. 23, 1954, at Peter Bent Brigham Hospital in Boston. After natural death, only a few tissues can be donated whereas after brain death, almost 37 different organs and tissues can be donated include critical organ such as kidney, liver and lungs. To motivate young people to donate organs. organ donation day is celebrated on 13 August every year.	Introduce the topic	Listening

2.	2mts	define organ donation.	**DEFINITION:** Organ donation is the process of giving an organ or a part of an organ for the purpose of transplantation into another person. Both deceased and living organ donation begins with a person who recognizes an opportunity to help others. **-UNOS** Organ donation is the process of giving an organ or a part of an organ for the purpose of transplantation into another person. **DONATE LIFE AMERICAN ORGANIZATION**	Defining	Listening
3.	3mts	Student will be able to state the incidence of organ donation	**INCIDENCE:**  	Discuss the incidence	Listening

4.	5mts	enlist the types and alternative donors.	**TYPES OF DONORS:** **Living-** The donors remains alive and donates a renewable tissues, cell, or fluid(eg blood, skin) or donate an organ or part of an organ in which the remaining organ can regenerate or take on the workload of the rest of the organ (primarily single kidney donation, partial donation, of liver, small bowel) **Deceased (cadaveric)-**The donors have been declared brain dead and their organs are kept viable by ventilators or other mechanical device until they can be excised for transplantation. **ALTERNATIVE ORGAN SOURCES:** Some potential non-traditional sources of organs are: ➢ **Animal organs –** Animals are a potential source of donated organs. Experiments with baboon hearts and pig liver transplants have received extensive media attention in the past. One cautionary argument in opposition to the use of animal organs concerns the possibility of transferring animal bacteria and viruses to humans. ➢ **Artificial organs –** Artificial organs are yet another potential option. The ethical issues involved in artificial organs often revert to questions about the	Enlisting	Listening

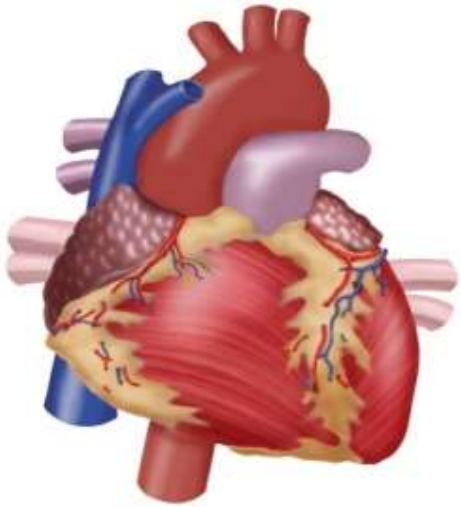
5.	5mts	list out the modes and types of transplantation	cost and effectiveness of artificial organs. People who receive artificial organ transplants might require further transplanting if there is a problem with the device. ➢ **Stem cells –** Stem cells are cells that can specialize into the many different cells found in the human body. Researchers have great hopes that stem cells can one day be used to grow entire organs, or at least groups of specialize cells. ➢ **Aborted fetuses–** Aborted fetuses are a proposed source of organs. Debates address whether it is morally appropriate to use organs from a fetus aborted late in a pregnancy for transplantation that could save the life of another infant. **MODES OF TRANSPLANTATION:** 1. **Living donors** – Donate to family members or friends in whom they have an emotional investment. 2. **paired exchange** – Is a technique of matching willing donor to compatible recipients eg: spouse 3. **Altruistic donation** – Is donating an organ to someone not well known to the donor.	Listing	Listening

			4. **Compensation donation** – Donors get money or other compensation in exchange for their organs. 5. **Forced donation** – There have been various accusations that certain authorities are harveating organs from undesirable people such as prison population. **TYPES OF TRANSPLANT:** 1. **Autograft-** transplant of tissue to the same persos 2. **Allograft**- transplant of an organ or tissue between two genetically non identical members of the same species 3. **Isograft-** a subset of allograft in which organs or tissues are transplanted from a donor to a genetically identical recipient 4. **Xenograft**- transplant of organs or tissues from one species to another 5. **Split transplant**- divided between two recipient especially an adult and child. 6. **Domino transplant**-this term refers to a series of living donor transplants		

6.	5mts	identify the major organs and tissues transplanted	**MAJOR ORGANS AND TISSUES TRANSPLANTED:** ***Thoracic organs*** 1.Heart (Deceased-donors only) 2. Lung (Deceased and Living donors) 3. Heart/Lung (Deceased-donor and Domino transplant) ***Abdominal organs*** 1.Kidney (Deceased and Living donors) 2.Liver (Deceased and Living donors) 3.Pancreas(Deceased-donors only) 4.Intestine(Deceased and Living donors) 5.Stomach (Deceased-donors only) 6. Testis ***Tissues, cell, fluids*** 1.Hand (Deceased-donors only) 2.Cornea (Deceased-donors only) 3.Skin (Autograft) 4.Islets of Langerhans (Deceased-donors only)	Identifying	Listening

7.	4mts	Mention the organ criteria	5.Bone marrow/Adult stem cell (Living donor and Autograft) 6.Blood transfusion/Blood parts transfusion (Living donor and Autograft) 7.Blood vessels (Autograft and Deceased donor) 8.Heart valve (Deceased donor, Living donor and Xenograft) 9.Bone (Deceased and Living donors) **ORGAN DONOR CRITERIA:** ➢ There is no age limit, but is based on patient's current medical history ➢ Dead by Neurologic Criteria **"Brain Dead"** ➢ Medical history is examined at the time of death ➢ Free of HIV **all serologies are examined at time of death** **Death by neurological criteria:** An individual with ***irreversible cessation*** of all functions of the entire brain, including the brainstem, is dead.	Mentioning	Listening

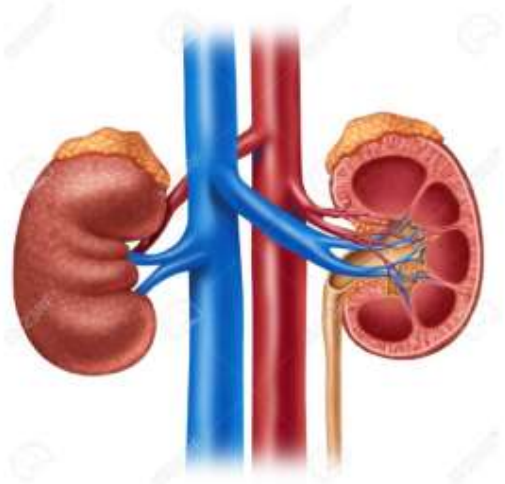
8.	3mts	Explain the brain death.	**Tissues donor criteria:** ➢ Age < 70 ➢ Recovered within 24 hours after death if body is cooled in the first 12 hours ➢ No active, transmissible disease ➢ No autoimmune disorder **Eye donor criteria:** ➢ No upper age limit ➢ 1 year to 68 year ➢ Less than 1 year or greater than 68 year ➢ Other research for patients with history of glaucoma, diabetes, etc. **BRAIN DEATH:** It is the irreversible and permanent cessation of all brain function. Brain can no longer send messages to the body to perform vital function like breathing, sensation, obeying command etc. such person are kept on artificial support (ventilation) to maintain oxygenation of organs so that the organs are in healthy condition until they are removed. The doctor can conform the brain death by apnea test after the brain death is conformed plan for organ donation by consent of donor or close relatives.	Explaining	Listening

9.	10mts	Identify the receipients of needed organ.	**RECEIPIENTS OF NEEDED ORGANS:** **HEART TRANSPLANTS**  A wide range of heart diseases may make transplantation necessary. This usually follows conditions such as coronary artery disease, cardiomyopathy or weakening of the heart muscle.	Identifying	Listening

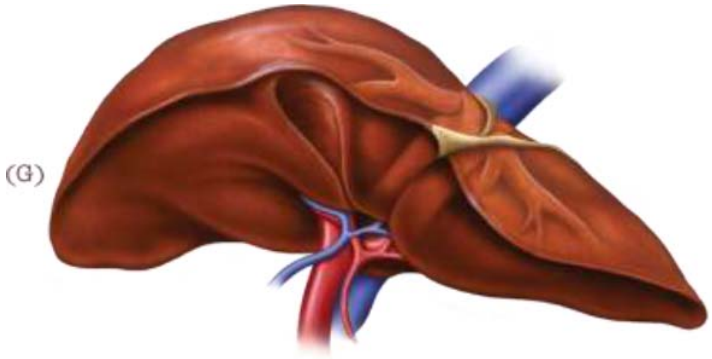
Quick Facts

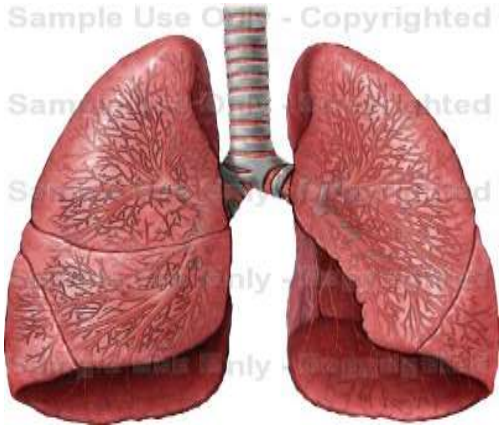
- Donated hearts based on medical urgency, blood type compatibility, size match and waiting list time.
- A donated heart can only remain outside of the body for about four hours before it must be transplanted.

KIDNEY TRANSPLANTS



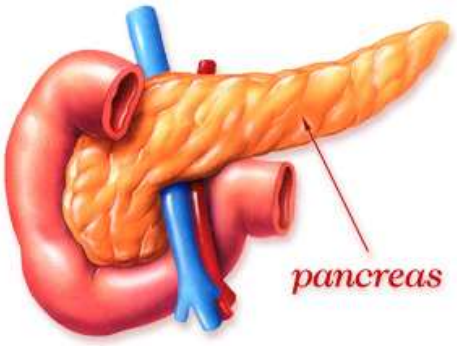
			Inherited kidney diseases such as polycystic kidney disease as well as diabetes and high blood pressure are the most common causes of kidney failure requiring transplant. While most people are born with two kidneys, we can survive with one. That is how individuals are able to be living kidney donors, and help save the lives of a loved one or even a complete stranger. **Quick Facts** • The kidney is the most commonly transplanted organ. For the first time, the number of patients currently awaiting kidney transplants in the U.S. exceeds 100,000. • Of those on the waiting list, more than one-third will wait three or more years for a transplant.		

			LIVER TRANSPLANT  Liver failure can be caused from viral infections, genetic disorders or even alcoholism. These liver diseases lead to cirrhosis, which creates scar tissue that blocks the flow of blood and thus impedes its functions. Primary biliary atresia, a malformation of the liver's bile ducts, is the most common disease leading to transplant in young children. **Quick Facts** • Hepatitis C is the most common cause of liver failure leading to liver transplantation.		

			• A liver donated by an adult can often be split and transplanted into two people. • There are more than 16,000 patients currently awaiting liver transplants. **LUNG TRANSPLANTS**  Lung transplants are recommended for those with severe lung disease, such as cystic fibrosis, COPD (chronic obstructive pulmonary disease) and emphysema. **Quick Facts** • The most common type of lung transplant is a single lung transplant. • More than 1,700 patients await lung transplants in the U.S.		

- Lungs are allocated to patients based on several factors including distance from donor, medical condition, and age (lungs from pediatric and adolescent donors are offered first to pediatric and adolescent patients).

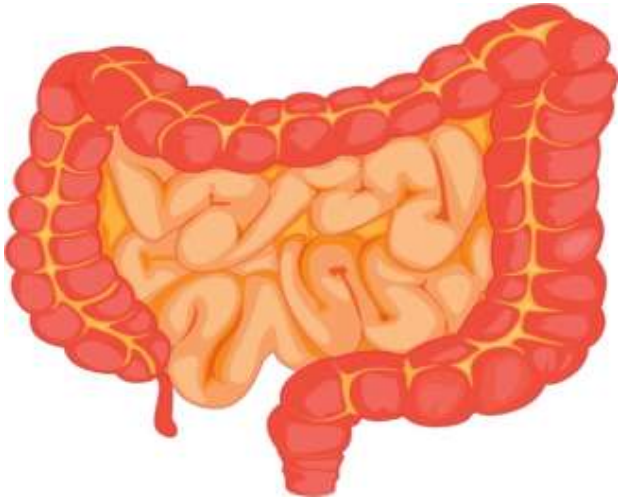
PANCREAS TRANSPLANTS



Problems with the pancreas can lead to many health problems. These include pancreatitis, or inflammation of the pancreas, pancreatic cancer and cystic fibrosis, a genetic disorder in which thick, sticky mucus can also block tubes in your pancreas.

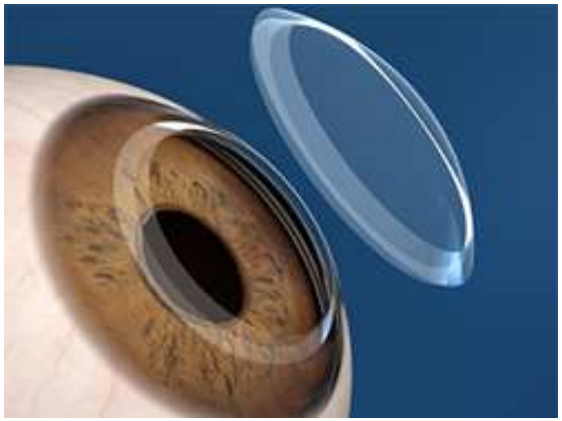
Quick Facts

- The pancreas is most commonly transplanted in combination with the kidney.

			• There are more than 1,300 patients awaiting pancreas transplants and more than 2,100 patients awaiting combine pancreas and kidney transplants in the U.S. **INTESTINE TRANSPLANTS**  The most common reason leading to transplant is short bowel syndrome caused by conditions like tumors, Crohn's disease and other inflammatory bowel diseases, or congenital defects.		

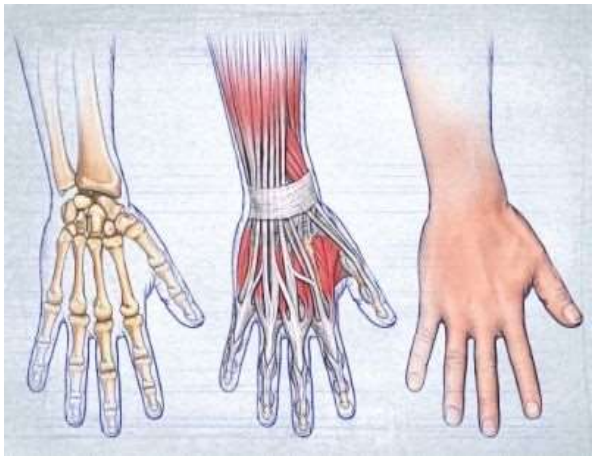
			TISSUE DONATION AND TRANSPLANTS  Hundreds of thousands of people in the U.S. benefit from life-enhancing tissue transplants each year. While the donation of organs is primarily limited to patients who die as a result of brain death, virtually anyone who dies as a result of cardiopulmonary death — the heart stops beating — can be considered a tissue donor.		

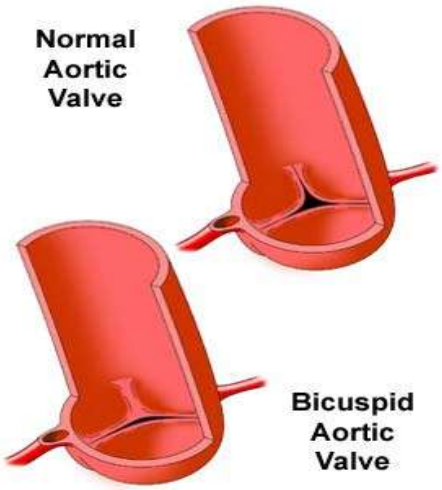
CORNEAS



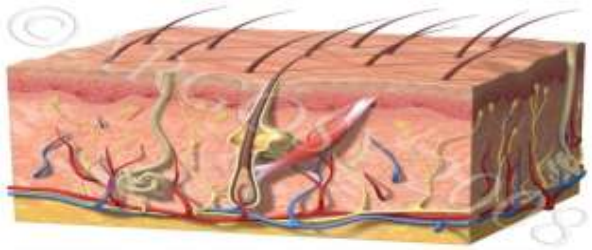
The cornea is the clear layer on the front of the eye. A corneal transplant is surgery to replace the cornea with tissue from a donor. It is one of the most common transplants done with a very high success rate. Corneal transplantation is recommended for people who have:

- Vision problems caused by thinning of the cornea, usually due to keratoconus
- Scarring of the cornea from severe infections or injuries
- Vision loss caused by cloudiness of the cornea, usually due to Fuchs' dystrophy

			BONE/TENDONS  Bones and tendons can be used to replace or reconstruct tissue destroyed by tumors, trauma or infection, saving limbs that would otherwise be amputated. Hundreds of thousands of patients benefit from transplants using donated bone for surgeries ranging from dental surgery, knee reconstruction and back surgery. Bone, tendon and related tissues are processed by bone banks and made available to surgeons on an as needed basis.		

			HEART VALVES  Donated heart valves can replace damaged ones, allowing the heart to function again. When used in young patients, these donated heart valves can actually "grow" with the recipient and reduce the need for repeated surgeries. Human heart valves have advantages over mechanical valves because of lower risk of infection and no need for blood thinning drugs required with mechanical valves.		

			BLOOD VESSELS/ VEINS  Donated blood vessels or veins can be used in patients who require coronary artery bypass surgery, a routine procedure that saves thousands of lives and allows these individuals to return to their normal lifestyles. For individuals suffering from diabetes or other diseases that cause a decrease in the blood flow, surgeons may use donated veins to repair damaged vessels and restore blood flow — in many cases saving a recipient's leg from amputation. The saphenous vein, a long vein on the inside of the leg, is the primary vein recovered from donors for transplant.		

10.	5mts	describe the organ donation during pregnancy.	**SKIN**  Donated skin is needed for patients suffering from burns or trauma, and used as a temporary covering to protect the body from infection and promote healing. Donated skin is also used for cleft palate repair or mastectomy reconstruction. Skin is typically removed from a donor in tissue-thin layers from the back and thigh area. **ORGAN DONATION DURING PREGNANCY:** Studies have shown that donating a kidney or part of the liver does not affect a woman's ability to have children. A recent study from Toronto says that women who have donated a kidney are at higher risk of developing gestational hypertension or pre-eclampsia during pregnancies that follow the donation. The study suggests the increase in risk is not enormous (about a 6% increase), and in fact most women who have donated a kidney can safely carry a pregnancy to term.	Describing	Listening

			 **Cord blood donation:** Stem cells, which have been used in the treatment of over 80 diseases,including leukemia, lymphoma and anemia. The most common disease category has been leukemia. The next largest group is inherited diseases (of red blood cells, the immune system and certain metabolic abnormalities.) Patients with lymphoma, myelodysplasia and severe aplastic anemia have also been successfully transplanted with cord blood. Parents may choose to bank their newborn's cord blood against the possibility that it will be useful in the future, should the child or a related family member fall victim to a disease that is treatable by cord blood stem cells.		

11.	3mts	list out the screening test for organ donation.	 **SCREENING TEST FOR ORGAN DONATION:** **Blood Type Test** The first test establishes your ABO blood type. There are four blood types: A, B, AB, and O, and everyone fits into one of these inherited groups. The recipient and donor must have either the same blood type or compatible ones. The Rh type (+, -) is not a factor in donor matching. **Human Leukocyte Antigens (HLA)** The second test, which is a blood test for human leukocyte antigens (HLA), is called tissue typing. These antigens are substances found on many cells of the body, but are mostly seen on white blood cells. Tissue type likeness between family members may range from identical (100 percent) to zero. The tissue type of all potential donors is considered in donor selection.	Listing	Listening

			Crossmatch Throughout your life, your body makes substances called antibodies that act to destroy foreign materials. You may make antibodies each time you have an infection, are pregnant, have a blood transfusion or undergo a kidney transplant. If you have antibodies to the donor kidney, your body will destroy the kidney. For this reason, when a donor kidney is available for you, we conduct a test to insure that you do not already have antibodies to the donor. This test is called a crossmatch. The crossmatch is done by mixing your blood with cells from your donor. If the crossmatch is positive, it means that you have antibodies against the donor and should not receive this particular kidney. If the crossmatch is negative, it means you do not have antibodies to the donor and that you are eligible to receive this kidney. Crossmatches are obtained several times during preparation for a living-related donor transplant, particularly if donor-specific blood transfusions are employed. A final crossmatch also is performed within 48 hours before the transplant. **Serology** Blood testing is conducted for potentially transmissible diseases, such as human immunodeficiency virus (HIV), hepatitis and cytomegalovirus (CMV).		

12.	3mts	Enumerate the contra indiacation	**ABSOLUTE CONTRA-INDICATIONS OR ORGAN DONATION:** These include the following: • Any history of malignant melanoma • Any history of metastatic malignancy • Other non-curable malignancy (curable malignancy such as localised small kidney tumours, localised prostate cancer, colon cancer >5 years previously may be considered after careful risk/benefit analysis). • Active HIV infection	Enumerating	Listening
13.	3mts	Describe the transplant rejection and their treatment	**TRANSPLANT REJECTION:** When a person receives an organ from someone else during transplant surgery, that person's immune system may recognize that it is foreign. This is because the person's immune system detects that the antigens on the cells of the organ are different or not "matched." Mismatched organs, can trigger a blood transfusion reaction or transplant rejection.	Discribing	Listening

			There are three types of rejection: 1. Hyperacute rejection occurs a few minutes after the transplant when the antigens are completely unmatched. The tissue must be removed right away so the recipient does not die. This type of rejection is seen when a recipient is given the wrong type of blood. For example, when a person is given type A blood when he or she is type B. 2. Acute rejection may occur any time from the first week after the transplant to 3 months afterward. All recipients have some amount of acute rejection. 3. Chronic rejection can take place over many years. The body's constant immune response against the new organ slowly damages the transplanted tissues or organ. **TREATMENT FOR ORGAN REJECTION:** Medicines will likely be used to suppress the immune response. Dosage depends on your condition and may be very high while the tissue is being rejected. After you no longer have signs of rejection, the dosage will likely be lowered.		

14.	10mts	Explain the law and rules governing organ donation	**THE LAWS AND RULES GOVERNING ORGAN DONATION AND TRANSPLANTATION:** Transplantation medicine is one of the most challenging and complex areas of modern medicine. Organ transplantation and organ donation is a boon to medical industry as it continues to help in saving lives of those who would have had premature deaths. There are various laws governing organ donation and transplantation. **UNITED NETWORK FOR ORGAN SHARING:** Located in Richmond, Virginia, the United Network for OrganSharing (UNOS) is a non-profit, scientific and educational organization that administers the only Organ Procurement and TransplantationNetwork (OPTN) in the United States, established (42 U.S.C. § 274) by the U.S. Congress in 1984. The organization's headquarters is situated near the intersection of Interstates 95 and 64 in the Virginia BioTechnology Research Park. UNOS is involved in many aspects of the organ transplant and donation process: • Managing the national transplant waiting list, matching donors to recipients 24 hours a day, 365 days a year. • Maintaining the database that contains all organ transplant data for every	Expalinig	listenig

transplant event that occurs in the U.S.

- Bringing together members to develop policies that make the best use of the limited supply of organs and give all patients a fair chance at receiving the organ they need, regardless of age, sex, ethnicity, religion, lifestyle or financial/social status.
- Monitoring every organ match to ensure organ allocation policies are followed.
- Providing assistance to patients, family members and friends.
- Educating transplant professionals about their important role in the donation and transplant processes.
- Educating the public about the importance of organ donation.

Opt-in versus opt-out

There are two main methods for determining voluntary consent: "opt in" (only those who have given explicit consent are donors) and "opt out" (anyone who has not refused is a donor). Opt-out legislative systems dramatically increase effective rates of consent for donation (the so-called default effect).[4] For example, Germany, which uses an opt-in system, has an organ donation consent rate of 12% among its population, while Austria, a country with a very similar culture and economic development, but which uses an opt-out system, has a consent rate of 99.98%.

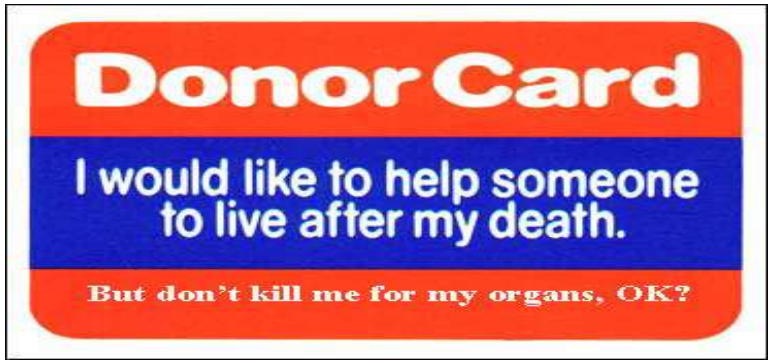
			THE LAW AND RULES GOVERNING ORGAN DONATION AND TRANSPLANTATION IN INDIA: The India government has come up with a 1994 law that criminalizes organ sales. **The Human Organs Transplant Act ,** 1994, has laid down certain rules and regulations that are to be followed while conducting an organ transplant. ➢ Organ transplant law does not allow exchange of money between the donor and the recipient. ➢ According to indian law, organ sale are banned and therefore no foreigner can get alocal donor. Human organ transplant laws are very strick in india and the penalty incurred for organ trade is also very high. ➢ According to the indian law, Close relatives of a recipient like parents, childrens, brithers, sisters, and spouse can donate the organ without government clearance. But all other relatives who wish to donate the organ need to appear before the authorization committee for clearance and only after its approval and clearance can get the organ transplantation. The main provisions of the THO act and the newly passed Gazette by the Government of India include the following:		

			1. For living donation - it defines who can donate without any legal formalities. The relatives who are allowed to donate include mother, father, brothers, sisters, son, daughter, and spouse. Recently, in the new Gazette grandparents have been included in the list of first relatives. The first relatives are required to provide proof of their relationship by genetic testing and/or by legal documents. In the event of there being no first relatives, the recipient and donor are required to seek special permission from the government appointed authorization committee and appear for an interview in front of the committee to prove that the motive of donation is purely out of altruism or affection for the recipient. 2. Brain-death and its declaration - brain death is defined by the following criteria: two certifications are required 6 hours apart from doctors and two of these have to be doctors nominated by the appropriate authority of the government with one of the two being an expert in the field of neurology. 3. Regulation of transplant activities by forming an Authorization Committee (AC) and Appropriate Authority (AA.) in each State or Union Territory. Each has a defined role as follows: a. Role of Authorization Committee (AC) - The purpose of this body is to regulate the process of authorization to approve or reject transplants		

			between the recipient and donors other than a first relative. b. Role of Appropriate Authority (AA): The purpose of this body is to regulate the removal, storage, and transplantation of human organs. A hospital is permitted to perform such activities onlyafter being licensed by the authority. **TAMIL NADU NETWORK OF ORGAN SHARING:** TNOS or Tamil Nadu Network of Organ Sharing is a venture started by the Department of Health and Family Welfare. The main aim of this website is to promote organ donation as well as transplantation in the state. TNOS is a common online registry where people who need organs can register for transplantation. It is connected with all the hospitals in Tamil Nadu that has been registered for transplantation of the organs. Another non-governmental organization that has done tremendous work to promote cadaver organ donation is Mohan Foundation. Multi Organ Harvesting Aid Network is a non-profit organization that was founded in Chennai in the year 1997. Started by like-minded medical and non-medical professionals, MOHAN Foundation today works in four areas: educating the public about organ donation, preparing and sending		

			Indian transplant newsletter, providing patient support group, and maintaining the Indian network for organ sharing. **STEP IN THE PROCESSOF ORGAN DONATION:** ➢ Identification of the potential donor by the hospital ➢ Evaluation of donor eligibility ➢ Authorization for organ recovery ➢ Medical maintenance of the patient ➢ Matching organs to potential recipient ➢ Offering organs regionally, Then nationally ➢ Placing organs and coordinating recovery ➢ Surgical recovery of organs ➢ Preparing recipient for surgery ➢ Distribution of organs ➢ Funeral and burial plans ➢ Follow-up with family and hospitals.		

			ETHICAL PRICIPLES OF ORGAN DONATION: ➢ The removal of the tissue or organ does not impair the heath or functional integrity of the donor ➢ The benefits expected to be given to the recipient bear an acceptable proportion to the harm likely to be caused the donor. ➢ The donation should be altruistic and is given without any coercion or any other form of external pressure. ➢ The donor must be fully informed of the nature of the procedure and the possible complications, if any. This entails the need for follow up of the donors health in the future. ➢ The view of close relatives such as the spouse or adult children are taken into account. ➢ There must be no elements of commercialization in the donation. **PLEDGE YOUR ORGANS - DONOR CARD:** The **Donor Card** enables people to express their wish to become an organ donor. It is like making a will. By signing the 'Donor Card' you have agreed to organ donation. Keep the Donor Card with you always in your purse or wallet.		

			Inform your close relatives about your wish to be an organ donor. The Donor Card also substitutes as an emergency card as it has the contact number in case of any emergency.  **ONLINE DONATION:**  Donate Online And Save Precious Lives. Your Donation Can Make A Huge Difference And Help Us Support Many Patients Suffering From End Stage Organ Failure.		

13.	3mts	enlist legal and ethical issues in organ donation	**LEGAL AND ETHICAL ISSUES IN ORGAN DONATION:** ➢ Failing to perform surgery properly (i.e., performing the wrong procedure, performing on the wrong person, failing to remove a surgical implement, etc.) ➢ Malpractice with regards to pharmacy error ➢ Breach of contract between donors and donees ➢ Forced donation or organ theft. **SUMMARY** The people must do more to save and improve lives through organ donation and transplantation. **CONCLUSION** So for till now we discussed about definition, types, modes, major transplant organ, Indication, organ donation during pregnancy, screening test, transplant rejection, rule and regulation and legal and ethical issues.	Enlisting	Listening

10. 11.					

CHAPTER -I

INTRODUCTION

CHAPTER- I

INTRODUCTION

" IN MY END IS MY BEGINNING "

- T.S. ELIOT.

BACKROUND OF THE STUDY

Organ donation is the process of giving an organ or a part of an organ for the purpose of transplantation into another person. In order for a person to become an organ donor, blood and oxygen must flow through the organs until the time of recovery to ensure viability. This requires that a person die under circumstances that have resulted in an irreparable neurological injury, usually from massive trauma to the brain such as aneurysm, stroke or automobile accident. Only after all efforts to save the patient's life have been exhausted, tests are performed to confirm the absence of brain or brain stem activity, and brain death has been declared, is donation a possibility. The state donor registry is searched to determine if the patient has personally consented to donation. If the potential donor is not found on the registry, his or her legally authorized representative (usually a spouse, relative or close friend) is offered the opportunity to authorize the donation. Once the donation decision is established, the family is asked to provide a medical and social history. Donation professionals determine which organs can be transplanted and to which patients on the national transplant waiting list the organs are to be allocated.

Organ donation can occur with:

·A Deceased donor, who can give kidneys, pancreas, liver, lungs, heart, intestinalorgans.

· A Living donor, who can give a kidney, or a portion of the liver, lung, intestine, or pancreas.

Organ Donation In India 1994, the Government of India passed the Transplantation of Human Organs Act that legalized the concept of brain death and, for the first time, facilitated organ procurement from heart beating, brain dead donors. However, this concept has not caught on well in India for want of public education and awareness.This in turn is perpetuating the commercial sale of human organs due to the widening gap between the demand and supply. Thousands of lives are lost in India annually from heart and liver failure since transplantation of unpaired organs like heart, liver and pancreas is either difficult or impossible from living donors.

Times Of India(TOI) reported that In India every year nearly

- 500,000 people die because of non-availability of organs
- 200,000 people die of liver disease
- 200,000 people die of liver disease
- 50000 people die from heart disease
- 150,000 people await a kidney transplant but only 5,000 get one
- 1,000,000 lakh people suffer from corneal blindness and await transplant

Nationally, with a population of 1.2 billion people, the statistic stands at 0.08 persons as organ donors per million population (PMP) Since 2005 more than three million people have died in the country because of non-availability of organs. This is an incredibly small and insignificant number compared to the statistics around the world.

Nandakumar Jairam,(FICCI Karnataka sate council),reported that "Transplants are one of the most miraculous achievements of modern medicine, but they depend entirely on the generosity of donors and their families who are willing to make this life saving gift to others,"

NEED FOR THE STUDY

India is one of the lowest organ donating countries in the world. Statistics show that less than one in a million in India donate their organs.Organ donation is legal by law because the Government of India has enacted **"The Transplantation of Human Organs Act 1994"** Act No.42, which has allowed organ donation and legalized brain death. Even 20 years after the Human Organ Transplantation Act majority of people are not aware of organ donation. The result: Since 2005 more than three million people have died in the country because of non-availability of organs.In Britain the rate of deceased organ donation was 17 per million, in Spain it was 35 per million but in India only 0.8 per million. In the **United States** 6,229 patients died because of the shortage of organ donors. Of these, 4,217 were awaiting kidney only.[5]**In Canada,** 2169 life saving organs transplants were performed. Unfortunately, 303 people died while waiting for organ transplant.[6]**In Australia,** 1,46,500 people died awaiting for organ transplantation.[7]**In India** total number of organ donors in **Andhra Pradesh are 41, Kerala 44, Delhi 27, Tamil Nadu 110 only and in Punjab donation rate is negligible. This number is very less to meet the demands of organ donation and slips to the 40th rank in the study of 69 countries in terms of number of transplants per million population.** Lack of awareness along with myths and misconceptions add to the low percentage of organ donation. Young adults represents the future of the society and have a direct influence on family members and friends. A favourable attitude of the young adults in this matter not only means a positive personnel attitude towards organ donation, but it can also be the determining factor for authorizing donation when faced with the death of a family member. After Computer Assisted Instruction, trained young adults become quality transmitters, propagators in their own sphere of influence, which goes beyond not only the family but also involves the community level for organ donation procedure.

According to a report in the Kidney International—the journal of the International Society of Nephrology—about 27,000 related and unrelated living kidney donor (LKD) transplants occur worldwide every year, of which 6,435 take place in the US and 1,768 in Brazil with India figuring in between with about 3,200 transplants, a number which the authors said, doesn't represent "reliable national data".

Sunil Shroff (managing trustee of the Mohan Foundation, a non-governmental organization that focuses on organ donation) says that In a country where 200,000 people need a new kidney every year and 100,000 need a new liver, only 2% to 3% of the demand for new organs is met.

Onur Ozlem Kose et al, reported thatorgan transplantation and donation should be included in the students' educational programs in order to increase positive attitudes and organ donations, and transform attitudes into behaviors.

Sonia Radunz et al, says that One of the main reasons for organ shortage is insufficient education on organ donation. Knowledgeable medical students could share the information with friends and families resulting in a positive attitude to organ donation of the general public.

United Network Of Organ Sharing (UNOS), shows statistical report of **121,770**-people need a lifesaving organ transplant (total waiting list candidates). Of those, 78,265 people are active waiting list candidates.

25,767-transplants performed this year, Total Transplants January - October 2015 as of 01/15/2016

12,510-donors.Total Donors January - October 2015 as of 01/15/2016

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of computer assisted instruction on knowledge and attitude regarding organ donation among the Arts students at selected Arts and Science Colleges, Thanjavur.

OBJECTIVES

- To assess the level of knowledge and attitude regarding organ donation before and after computer assisted instruction in experimental group and control group among the Arts students.
- To evaluate the effectiveness of computer assisted instruction regarding organ donation among the Arts students.
- To compare the level of knowledge and attitude regarding organ donation among the Arts students in experimental and control group.
- To correlate the post test level of scores of knowledge and attitude regarding organ donation among the Arts students in experimental and control group.
- To determine the association between post test level of knowledge and attitude regarding organ donation with their selected demographic variables among the Arts students in experimental and control group.

HYPOTHESES

All the hypothesis will be tested at p value 0.05 level

H_1-There is significant difference between the pre test and post test level of scores of knowledge and attitude regarding organ donation among the Arts students in experimental and control group.

H_2-There is significant difference in the levels of knowledge and attitude among the Arts students regarding organ donation between the experimental and control group.

H3-There is significant correlation between the post test level of scores of knowledge and attitude regarding organ donation among the Arts students in experimental and control group.

H4-There is significant association between the post test level of knowledge and attitude regarding organ donation with their selected demographic variables among the Arts students in experimental and control group.

OPERATIONALDEFINITIONS

EFFECTIVENESS:

In this study it refers to the extent to which the Computer Assisted Instruction influence in improving the knowledge and to develop positive attitude regarding organ donation among the Arts students.

COMPUTER ASSISSTED INSTRUCTION:

In this study, it refers to the planned teaching methods to educate the students with help of computer regarding organ donation.

KNOWLEDGE:

In this study, it refers to the information gained by the arts students regarding organ donation which will be measured by structured knowledge questionnaire.

ATTITUDE:

In this study, it refers to the beliefs and opinions regarding organ donation among the Arts students which will be measured by using 5 point likert scale.

ORGAN DONATION:

In this study, it refer to donation of biological tissues or organs of the human body, from a living person or dead to the recipient who is in need of transplantation.

FOURTH YEAR B.Sc NURSING STUDENTS:

In this study, it refers pupil studying final year B.A English.

ASSUMPTIONS

- The Arts students may not aware of organ donation.
- The computer assisted instruction will help to improve the knowledge and positive attitude regarding organ donation among Arts students.

DELIMITATIONS

- The study limited to the arts students at selected Arts ans Science colleges, Thanjavur.
- The data collection period limited to 6 weeks.

PROJECTED OUTCOME:

- The study help to gain adequate knowledge and develop positive attitude regarding organ donation among the Arts students
- The CAI on knowledge and attitude regarding organ donation will help the students to willingness of online registration for organ donation.

CHAPTER – II

REVIEW OF LITERATURE

CHAPTER –II

REVIEW OF LITERATURE

Review of literature is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic.

PART - I

Literature related to organ donation

PART – II

Conceptual framework

PART- I LITERATURE RELATED TO ORGAN DONATION

AfzalAghaee.M, Dehghani.M et al., International Journal of organ Transplantation Medicine (2015) stated that 41.5% of the students were aware of religious authorities' views on organ donation and 55.6% were willing to donate organs. Participants' main reasons for lack of willingness to donate organs included the fear of organ donation before the brain death is confirmed (52%), unwillingness to disfigure their body (51%), and belief in the burial of organs (50%). The willingness to organ donation for students who were aware of religious leaders opinion was more than twice more than those who were not (OR: 2.56, 95% CI: 1.75-4.52). Also, female gender, the Shia religion and awareness of the correct definition of brain death were associated factors affecting the desire to donate organs, although their effects were not statistically significant on regression model.A considerable proportion of students were not aware of the religious leaders' fatwa on organ donation.

Broeckx.N, Verhoeven.D, European journal of health law (2015) stated that will examine the problem of disease transmission through organ transplantation from a civil liability perspective. Both fault liability and strict product liability might be possible. These two types of liability will be

compared, while applying them to the actions of the central parties involved in organ donation and transplantation, namely the physician/hospital, the donor and the organ exchange organisation. While product liability is generally an easier way to obtain compensation than fault liability, it might nevertheless place too heavy a burden on the transplant professionals.

Chung.J, Choi.D, et al., Transplanting proceeding (2015) reported that Of the 323 students, 161 (49.8%) were willing to be a deceased donor, and the other 162 (50.2%) were unwilling or unsure. Neither level of knowledge nor experience of recent public information on organ donation affected students' decisions. Instead, a cohesive family environment and family discussion were strong predictors of the willingness Korea middle and high school students to be an organ donar. A donation education program that promotes family communication and discussion about organ donation could increase willingness to be an organ donor among Korean adolescents.

Cornwall.J, Schafer.C et al., The newzealand medical journal (2015) reported that Young adults are 'tomorrow's donors', yet the attitudes and knowledge of this group to OTD have not been examined locally. Such information is relevant to ODT education and clinical engagement.180 responses were gathered (mean age 20.1 years, 67% female, 68% New Zealand European); there were no age or response differences between sexes, participants were generally not representative of the University of Otago student profile. Outcomes indicated limited OTD knowledge, positive support for Organ and Tissue Donation, and willingness to engage in donation the decision-making process for loved ones. Findings highlight areas for strategic OTD public engagement and provide details relevant to guiding appropriate clinical interaction in facilitating decisions about OTD.

Febrero.B, Ríos.A et al., Research gate (2015) reported that Of 3,547 adolescents surveyed, 38% (n = 1,337) of the respondents knew the BD concept, considering it to be the death of an individual. Of the rest, 54% (n = 1,930) did not know this concept and the remaining 8% (n = 280) thought it did not mean a person's death. The respondents who were more in favor of deceased donation had a better knowledge of the concept of BD than those who had doubts (40% vs 35%, respectively; P = .007). The knowledge of the concept of BD was associated with variables directly and indirectly related with donation and transplantation (P < .05).Most adolescents in the southeast of Spain do not know the concept of BD, and this adversely affects the attitude toward organ donation.

Iltis.AS., American society of law, medicine & ethics (2015) reported that valid informed consent is ethically required for organ donation from individuals declared dead using neurological criteria. Current policies in the U.S. do not require this and, not surprisingly, current practices inhibit the possibility of informed consent. Relevant information is withheld, opportunities to ensure understanding and appreciation are extremely limited, and the ability to make and communicate a free and voluntary decision is hindered by incomplete disclosure and other practices. Current practices should be revised to facilitate valid informed consent for organ donation.

Jacob.C, Guéguen.N., Health marketing quarterly (2015) stated that Pictures and images are important aspects in fundraising advertising and could generate more donations. In two experimental studies, we examined the effect of various pictures of hearts on compliance with a request for organ donations. The solicitor wore a white tee shirt where various forms of hearts were printed: symbolic versus realistic (first experiment), none versus symbolic versus realistic (second experiment). Results showed that more compliance was

found in the realistic heart experimental condition whereas the symbolic heart form had no significant effect.

Keten.HS, Keten.D et al., Annals transplantation (2015) reported that Out of a total of 322 participants, 253 (78.6%) stated that organ donation is allowed in Islam, while 5 (1.6%) expressed that it is religiously forbidden, and 64 (19.9%) stated that they have no idea about the issue. Only 2 (0.6%) participants were registered organ/tissue donors, wile 320 (99.4%) were not. Out of all participants, 72 (22.4%) imams were willing to donate organs. Forty-six (14.3%) imams had previously received basic training about organ donation, and 166 (51.6%) were willing to attend a related training. Television programs and healthcare professionals were the most common means of learning about organ donation. Educational programs by healthcare professionals for imams and the public were proposed to be effective in increasing the number of organ donations.

Koplin.JJ., Monash bioethics review (2015) reported that the practice of altruistic blood donation fosters social solidarity while markets in blood erode it. This paper considers the implications of this line of argument for the organ market debate. I defend Titmuss' arguments against a number of criticisms and respond to claims that Titmuss' work is not relevant to the context of live donor organ transplantation. I conclude that Titmuss' arguments are more resilient than many advocates of organ markets suggest, and more relevant to the debate than is commonly appreciated.

Messina.E., Transplanting proceeding (2015) reported that if a religion refuses to define concrete rules about organ donation and transplantation, there are a great number of factors that may influence the decision-making process. Examples may include negative perceptions of the cutting and removal of organs or ignorance about the transplantation system,

both of which would influence the decision-making process concerning transplantation. Knowledge of these facts may provide useful information, perhaps increasing transplant numbers.

Sahin.H, Abbasoglu.O.,Experimental and clinical transplantation (2015) stated that participants who have received education before were more successful, had a higher self-donation rate, and showed a more-positive attitude toward organ donation than did those who did not receive an education, or a higher self-donation rate, or a more-positive attitude toward organ donation. Opposition against promotion of the organ donation by medical doctors was more widespread among men, preclinical students, African participants, and participants who did not support organ donation. The two most important decisions about increasing the level of organ donation involved in achieving support of the media and the education of the health care workers. Educational programs would improve the knowledge and attitudes of medical students about organ donation and transplantation.

Terbonssen.T, Settmacher.U et al., Interactive journal of medical research (2015) stated that We recruited a total of 2484 participants, of which 32.7% (300/917) had received information material. Mean age was 29.9 (SD 11.0, median 26.0). There were 65.81% (1594/2422) of the participants that were female. The mean knowledge score was 3.28 of a possible 5.00 (SD 1.1, median 3.0). Holding a donor card was associated with specific knowledge (P<.001), but not with the general education level (P=.155). Receiving information material was related to holding a donor card (P<.001), but not to a relevant increase in specific knowledge (difference in mean knowledge score 3.20 to 3.48, P=.006). The specific knowledge score and the percentage of organ donor card holders showed a linear association (P<.001).The information campaign was not associated with a relevant increase in specific knowledge, but with an increased rate in organ donor card holders. This effect is most

likely related to the feeling of being informed, together with an easy access to the organ donor card.

Wunderlich.H., Der.urologe.Ausg.A (2015) reported that renal transplantation is well established as the best and often the only treatment for many patients with end-stage kidney failure. Because of an increasing shortfall between the diminishing number of deceased donor organs available and the increasing waiting list of patients in need of transplantation the shortage of suitable donors remains one of the most pressing challenges. The success of organ transplantation can be attributed to many factors but ultimately depends upon retrieval and preservation techniques to maintain the quality of an organ. Although the literature on organ retrieval is extensive, the level of evidence provided is mainly low. But as techniques and treatments improve, it may be possible to use organs from donors who were previously thought to be unsuitable.

D'Alessandro.AM, Peltier.JW et al., Progress in transplantation (2014) reported that focuses on the University of Wisconsin Hospital and Clinics organ procurement organization's efforts to increase deceased organ and tissue donation by using social media and personalized messages targeting members of university student organizations, their families, and their friends. A grant from the US Department of Health and Human Services funded a 2-year study to (1) identify barriers/opportunities for increasing awareness, attitudes, and behaviors related to organ and tissue donation; (2) implement an intervention using social media and personalized message to increase knowledge, support, and donor registrations; (3) measure impact on awareness and attitudinal and behavioral changes within the organization; and (4) assess behavioral measures across a host of social media analytics and organ donor registrations. The results show increases in knowledge about and support for organ donation, including a 20% increase in donor registration.

Goodarzi.P, Aghayan.HR et al., Springar link (2014) stated that Tissue and organ transplantation is one of the most promising treatments for some incurable diseases. Nowadays, transplantation is the common therapy in many countries. Unfortunately, availability of donated tissues and organs is limited. There are several factors which may affect donation rate for instance; social factors, culture, religion, and family decision. Accordingly, religious beliefs have a crucial role in tissue and organ donation and transplantation. Islam as a code of life has a comprehensive road map to lead mankind. Spiritual view of human life is considered to be much more valuable in Islam. Therefore, saving a human life is one of the most important Islamic teachings. In Iran as a Muslim country, tissue and organ transplantation program was established based on religious scholars' permission which has an essential role towards considerable development of the program in Iran.

Ramadurg.UY., Journal of clinical diagnostic research:JCDR (2014) reported that The difference which was observed in their knowledge before and after providing the educational intervention was found to be statistically significant ($t= 39.315$, $p< 0.0000$). The awareness of the legislation regarding organ donation was poor. Thiryone(444.3%) subjects were unaware about the existence of laws which were related to organ donation and its process The study emphasizes the need of an intervention which incorporates the knowledge, motivational messages, facts and figures, to bring necessary change in the perceptions and intentions of the students regarding organ donation.

Sikora. A et al., Folia Medica cracoviensia (2014) stated the biggest number of incorrect answers was given to the question about a place from bone marrow is harvested - nearly 49%. Registered students showed a better level of knowledge than the unregistered. We noted a low level of knowledge about bone marrow donation and possibility of becoming potential bone marrow donor among Lublin universities students.

Chamsi-Pasha.H, Albar.MA., Soudi journal of kidney disease and transplantation(2013) reported that there is a wide gap between organ supply and demand, which results in a very long waiting time for kidney transplantation and an increasing number of deaths of the patients while on the waiting list. These events have raised many ethical, moral and societal issues regarding organ donation, allocation and use of living donors through exploitation of the poor for the benefit of the wealthy. Success in the implementation of kidney transplantation programs in a country depends on various factors including the economic situation, religious approval, public views, medical expertise and existing legislation. The public attitude toward donation is pivotal in all transplantation programs; increasing the awareness of the leaders of religion is vital in this regard.

Khalaila.R., Medicine and law (2013) stated that willingness to donate was positively related to altruism level, positive attitudes toward organ donation and donor registration. However, level of knowledge had no impact on willingness. Finally, while Christian students were more willing to donate organs than students of other religions, religiosity was negatively associated with willingness to donate organs. These results suggest that positive attitudes, a signed organ donor card and a high level of altruism may ultimately translate into an act of donation in the future. Religion and religiosity level are still barriers to future organ donations in a multicultural society such as Israel.

Liu.S.,transplant proceeding (2013) reported that Japanese students' attitude towards deceased organ donation was more favorable than that of Chinese students (43.6% versus 35.9%, P = .001). Several factors contributed to positive responses by students from both countries: family perspective on organ donation and transplantation; decision to donate to family members; prior blood donation; living liver or kidney donation; possibility of needing a transplant; and willingness to receive a deceased or a living donor organ.More efforts must emphasize awareness and up-to-date knowledge regarding organ

donation among citizens and should be undertaken by the Chinese and Japanese governments.

Marqués-Lespier.M, Ortiz-Vega.N et al., Puerto rico health science journal (2013) stated that that medical students have a positive attitude towards organ donation. However, a substantial lack of knowledge of organ donation among our subjects is a barrier to their taking the necessary measures to become active donors. Our data highlight the need to incorporate educational programs to increase knowledge and awareness regarding organ donation and the transplantation process.

McGlade., Barbara Pierscionek, BMJ open (2013) reported that student nurses commonly exhibit concerns about their lack of knowledge of organ donation and transplantation. The focus of this study was to determine the attitude and behaviour of student nurses and to assess their level of knowledge about organ donation after a programme of study. A quantitative questionnaire was completed before and after participation in a programme of study using a pretest–post-test design. 100 preregistration nurses (female : male=96 : 4) aged 18–50 years (mean (SD) 24.3 (6.0) years) were recruited. Participants' knowledge improved over the programme of study and Changes in attitude postintervention were also observed in relation to participants' willingness to accept an informed system of consent and with regard to participants' actual discussion behaviour The results provide support for the introduction of a programme that helps inform student nurses about important aspects of organ donation.

Nierste.D., Journal of Christian law (2013) stated that organ transplantation extends lives and improves health but presents complex ethical dilemmas for nurses caring for donors, recipients, and their families. This article overviews organ procurement and allocation, discusses ethical dilemmas in transplantation, and offers strategies from professional and biblical

perspectives for coping with moral distress and maintaining compassionate care.

PrasannaMithra.A PrithvishreeRavindra.A et al., Indian journal of palliative care (2013) stated that Overall, 59.6% participants showed the willingness to donate organs. Females (64.1%) and participants from upper socio economic status (62.7%) had higher willingness rates for organ donations. Hindus (63.6%) and Christians (63.3%) had higher willingness rates for organ donations than Muslims (38.2%). Also, 23.7% participants showed willingness to donate eyes and 33.6% wished to donate any organ after death. Most of the participants (67%) were aware that money should not be accepted for donating organs, and 58.1% were aware that it is an offence to accept any benefit for organ donations. Forty percent participants had perceived risks associated with organ donation. Regarding donor cards, 42.3% of the participants knew about it and 3.7% already possessed i It is apparent from the study that though there was high level of awareness about organ donation, a high proportion of the participants did not have positive attitudes towards organ donation.

Rey.JW, Grass.V et al., Annals transplantation (2013) reported that when young people discuss organ donation in their families or when they seek information themselves, the acceptance of organ donation greatly improves. Our data suggest that education on organ donation can double the number of carriers of an organ donor card among students.

Reville.P, Zhao.C et al.,transplantation proceeding (2013) stated that students correctly answered questions more frequently post-education. This experience included for the first time a formal assessment of the program which will be utilized to address targeted areas for specific improvements. This student collaborative model of involving students in organ donation and

transplantation related education research has the potential to promote and maximize the effectiveness of educational programs targeting their peers.

Shumin. X, Woom.S et al., patient preference and adherence (2013) reported that in recent decades, the demand for organ transplantation has risen rapidly worldwide, due to an increased incidence of vital organ failure. However, the scarcity of organs appropriate for transplantation has led to an organ shortage crisis. This article retrospectively reviews strategies to change negative public attitudes toward organ donation in the People's Republic of China. We strongly believe that efforts to publicize knowledge of organ donation, promote family discussions, train medical staff and students, establish incentive systems, and implement regulatory oversight may combat unfavorable Chinese public opinion toward organ donation and transplantation, thus potentially increasing the organ donation rate in the People's Republic of China.

Tumin.M, Noh.A et al., Annals transplantation (2013) stated that we approached 900 Malaysian Muslims and 779 participated in our survey, conducted in Kuala Lumpur and its suburb. We examined their willingness to become donors and the willing donors were asked why they did not pledge to become donors. Non-donors were asked why they refuse to become donors.The survey found the main reason for Malaysian Muslims not pledging their organs was due to their lack of information on organ donation and/or their lack of confidence in the government's ability to properly administer organ donation procedures. Another interesting finding is that religion is not a main deterrent to organ donation.

Warrens.AN, Gauher.ST et al., Clinical transplantation (2013) reported that we investigated the younger generation of UK-educated ethnically Indian and Pakistani students to determine their attitudes toward organ

donation.We conducted nine focus groups and eight semi-structured interviews. Participants were divided by ethnicity, gender, and medical/non-medical background. Interview transcripts were analyzed by thematic analysis.Six key factors influencing attitudes toward organ donation were found: religion, awareness of the importance of donation, impact of medical education, culture-specific factors, treatment of donors and their organs, and influence of family. The attitude of Islam to donation was highly relevant to Pakistani participants, more than other factors; for Indians, all six factors were similarly relevant. We found that medical education specifically had an important effect on shaping attitudes toward donation. Cultural changes suggested the younger generation may differ from their elders as they adopt British culture. Awareness of donation was universally low.

Lo.CM., The HKO scholars hub (2012) stated that deceased donation rate is low in Asia, and there is a critical shortage of liver grafts. 2. The number of liver transplants in Asia has increased rapidly during the last decade, mainly because of the rapid increase in the use of living donor liver transplantation (LDLT). 3. Various social, cultural, religious, and economic factors account for the low rate of deceased donation, and there is marked diversity between different countries and even within individual countries. 4. There are excellent opportunities for the actualization of deceased donation through legislation, education, donor actions, and innovations. 5. In the foreseeable future, LDLT will continue to play a crucial role for patients with liver disease in Asia.

CONCEPTUAL FRAMEWORK

KING'S GOAL ATTAINMENT THEORY

Conceptual framework is a basic structure that consists of certain abstract block which represents the observational the experimental and analytical / synthetically aspects of a process (or) system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. A conceptual framework is used in research to outline possible course of action (or) to present a preferred approach to an idea (or) thought. Nursing theory should provide the principles that underpin practice and help to generate further nursing knowledge.

The study is based on Imogene king's goal attainment theory (1997) which would be relevant for CAI regarding the organ donation. Imogene king's system is an open system. In this system human are in constant contact interaction with their environment.

Perception:

In this study the researcher perceives that most of the Arts students had inadequate knowledge and attitude regarding organ donation.

Judgment:

In this study the researcher judge that the CAI is effective in improving the knowledge and attitude regarding organ donation. It provides improve the awareness of organ donation as will as the prevent legal and ethical issues.

Action:

In this study the researcher prepare the CAI is effective in improving the knowledge and attitude regarding organ donation.

Mutual goal setting:

In this study it is an activity that includes the student when appropriate in prioritizing the goal and in developing the plan of action to achieve those goals. Here this study both the researcher and student accept to undergone with the research study.

Reaction:

The researcher plans together and moves towards goal attainment. Here the researcher plan to teach the organ donation after conducting the pre test to the experimental group.

Interaction:

The act of two or more persons in mutual presence and sequence of verbal and non-verbal behaviours that are directed towards goal. In this study the interaction includes pre test (for assessing the knowledge and attitude) than administration of CAI and post test to the samples of the experiment group and no intervention to the samples of the control group.

Transaction:

In this study the transaction includes post test on the assessment of knowledge and attitude regarding organ donation among the student. In this study the researcher and the subject came together for an interaction, a different set of perception to exchange. The researcher perceives the subject need to teaching the organ donation to rules and regulations among the Arts student. The researcher communicates the subjects by implementing the CAI regarding the organ donation between the subjects takes place. The goal is said to be achieved is an increased level of knowledge and attitude in experimental and control group.

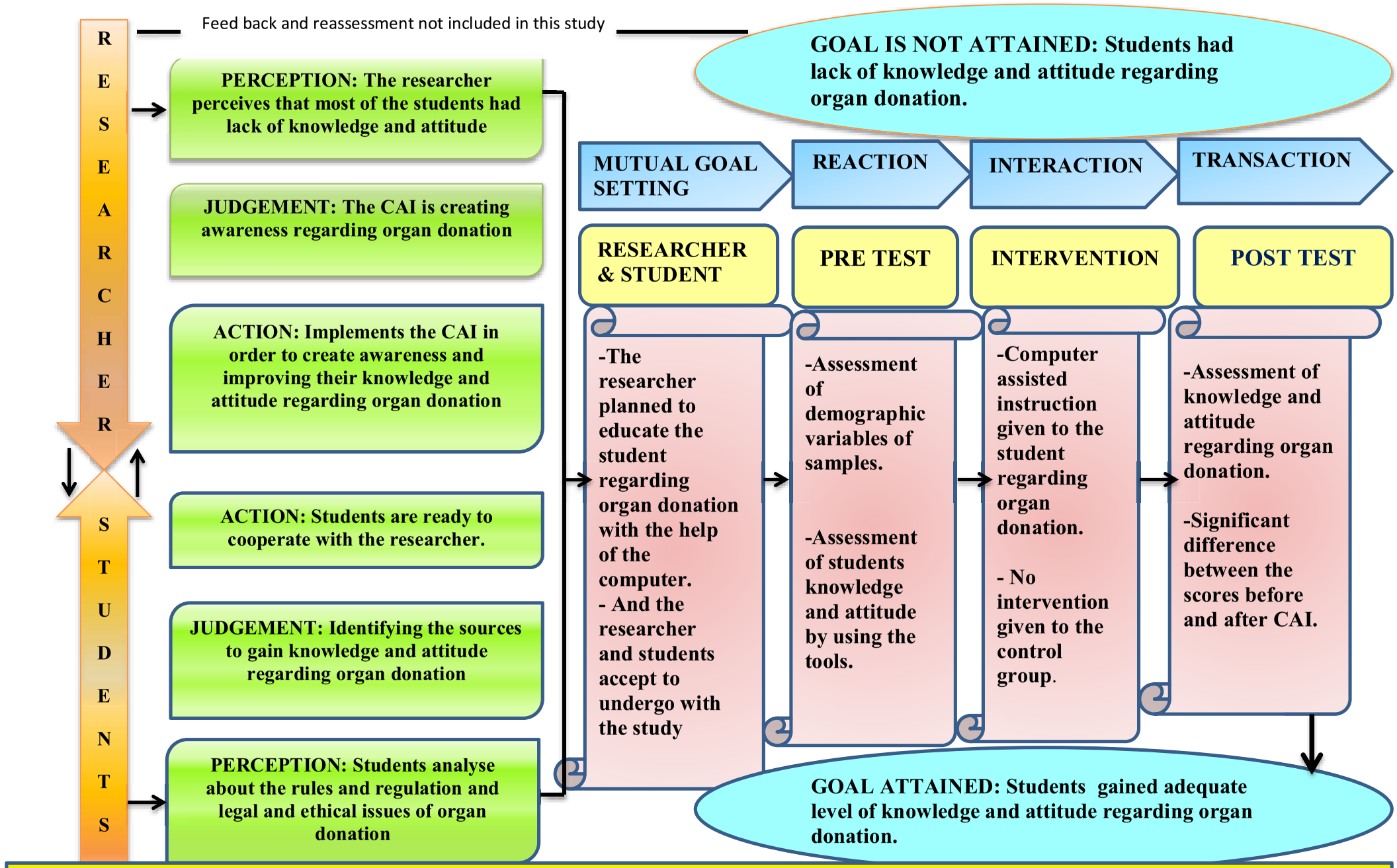


FIG-2.1 : Conceptual Frame work based on King's Goal Attainment Theory (1997) to evaluate the effectiveness of CAI regarding organ donation among Arts Students.

CHAPTER - III

RESEARCH METHODOLOGY

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. In this chapter the investigator discusses the Research approach, Research design, Variables, Setting, Population, Sample, Sample size, Sampling technique, Criteria for data collection, Description of the tool, Plan for data analysis and Protection of human rights.

RESEARCH APPROACH

Evaluative research approach was used in this study.

RESEARCH DESIGN

Quasi experimental design - Non equivalent pre test- post test control group design was used in this study.

E	**O_1**	**X**	**O_2**
C	**O_1**	**-**	**O_2**

E-experimental group.

C- control group.

O_1-pre test

X-intervention(Computer Assisted Instruction regarding the organ donation)

O_2-post test.

VARIABLES

Independent variable: Computer Assisted Instruction regarding organ donation.

Dependent variables: Knowledge & attitude regarding organ donation.

Demographic variables: Demographic variables such as age of the student, gender, religion, domiciliary area, medium of education, residential area, source of information.

SETTING

The study was conducted among final year B.A English students at selected Arts and science colleges in Thanjavur District such as Vivekanandha Arts and Science college it was nearby 7kms and Bharath college of Arts and Science it was nearby 2kms. Pilot study was conducted at Annai velankanni Arts and Science college it was near by 2kms and A.V.V.M Sri Pushpam College it was near by 5kms were situated in Thanjavr District.

POPULATION

The population will be comprised of final year B.A English students at selected Arts and Science colleges, Thanjavur.

SAMPLE

The sample will be comprised of final year B.A English students.

SAMPLE SIZE

The total sample size will comprised of 80 Arts students at selected Arts and Science colleges, Thanjavur.

Experimental group: 40

Control group: 40

SAMPLING TECHNIQUE

Non probability - convenient sampling technique was used in this study.

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

- Students who are studying in the final year B.A English at selected Arts and Science colleges in Thanjavur District.
- Students who are willing to participate in the study.

EXCLUSION CRITERIA

- Students who are studying other than B.A English.
- Students who are undergone previous organ donation awareness programmes and seminars.

REPORT OF THE PILOT STUDY

Pilot study was conducted to test the reliability, practicability, validity and feasibility of the tool. Pilot study was conducted for a period of 2 weeks.The investigator obtained a written consent from the authorities of A.V.V.M Sri Pushpam College, Thanjavur.(Experimental group) and Annai Velankanni Arts and Science college, Thanjavur.(Control group). The investigator obtained the oral consent from the participants prior to the study. Non probability convenient sampling technique was used to select the samples. The pre test was conducted by using knowledge questionnaire to assess the knowledge and 5 point Likert scale to assess the attitude. The next day, CAI was provided to the (experiment group) and the post test was conducted after 7 days by using the same tools for both experimental and control groups. The result of the pilot study was analysed by the descriptive and inferential statistics and it showed the study was feasible to do. So the main study was proceeded.

RELIABILITY AND VALIDITY OF THE TOOL

The reliability and validity of the tool was established with Medical and Nursing experts. The tool was modified according to the suggestions and recommendations of experts and the tool was finalized. The reliability of the tool was established by test-retest method, experimental group r =0.7 and control group r = 0.3(Karl Pearson co-efficient Formula)

METHOD OF DATA COLLECTION

Written formal permission was obtained from the authorities of the institutions. The investigator obtained the oral consent from the participants prior to the study. Non probability convenient sampling technique was used to select the samples. The investigator conducted the pre test by using the self administered knowledge questionnaire to assess the knowledge and 5 Point Likert scale to assess the attitude . The next day CAI was provided to the experimental group and the post test was conducted after 7 days by using same tools for both experimental &control groups to determine the knowledge and attitude of the subjects with the help of using the same questionnaire and 5 point Likert scale.

SCORING AND INTERPRETATION PROCEDURE

(A)DESCRIPTION OF THE TOOL

Semi structured questionnaire will have III parts,

Part-I - Demographic variables.

Part-II- It consisted of self administered questionnaire used to assess the knowledge regarding organ donation.

Part-III- It consisted of 5 point Likert scale used to assess the attitude regarding organ donation.

(A) SCORING OF THE TOOL

PART-II:

It consisted of 30 items related to knowledge regarding organ donation each correct answers carries "1" mark and "0" mark for wrong answer.

$$\frac{\text{Obtained score}}{\text{Total score}} \times 100$$

TABLE 3.1 Represents the frequency &percentage for the levels of knowledge score

LEVEL OF KNOWLEDGE	SCORE	PERCENTAGE
Inadequate knowledge	0 – 10	0 – 33 %
Moderately adequate knowledge	11– 20	34 – 67%
Adequate knowledge	21– 30	68 – 100%

PART-III

It consisted of 15 items related to attitude likert scale. Each item carries "1" (one) mark for correct answer "0" mark for wrong answer.

$$\frac{\text{Obtained score}}{\text{Total score}} \times 100$$

TABLE 3.2 Represents the frequency & percentage for the levels of attitude score

LEVEL OF ATTITUDE	SCORE	PERCENTAGE
Inadequate attitude	0-25	1 _ 33 %
Moderately attitude	26-50	34 – 67 %
Adequate attitude	51-75	68– 100%

PLAN FOR DATA ANALYSIS

Collected data was tabulated and analysed by using descriptive and inferential statistical methods.

TABLE 3.3Represents the plan for data analysis

S. NO	DATA ANALYSIS	METHODS	REMARKS
1.	Descriptive statistics	Percentage, Frequency distribution and Mean, standard Deviation	To describe the demographic variables of Arts students knowledge and attitude in both experimental and control group.
		Correlation	To determine the relationship between the post test scores of knowledge and attitude of Arts students in both experimental and control group.
2.	Inferential statistics	Paired "t" Test	To assess the effectiveness of Computer Assisted Instruction regarding organ donation among Arts students.
		Unpaired "t"	To compare the knowledge and attitude of Arts

		test	students in both experimental and control group.
		Chi-square test	To find out the association between the knowledge and attitude of Arts students in both experimental and control groups with their selected demographic variables.

PROTECTION OF HUMAN SUBJECTS

The research proposal was approved by the dissertation committee prior to conduct the pilot study. The permission was obtained from the head of the institutional authorities. After the clear explanation about the study, oral consent was obtained from each participant before started the data collection. Assurance was provided to the subjects that the anonymity, confidentiality and subject privacy would be guarded.

CHAPTER –IV

DATA ANALYSIS

CHAPTER –IV

DATA ANALYSIS

This chapter deals with the description of sample characteristics, analysis and interpretation of data collected from the Arts students regarding organ donation. This chapter represents the organization of data and interpretation of data by using the descriptive and inferential statistical methods .The data was collected and analysed as per the objectives of the study.

ORGANIZATION OF DATA

The data was organized and tabulated as follows.

SECTION : 1

Assessment of demographic variables of the Arts students regarding organ donation.

SECTION : 2

Assessment of pre test levels of knowledge regarding organ donation among the Arts students in both experimental and control group.

SECTION : 3

Assessment of post test levels of attitude regarding organ donation among the Arts students in both experimental and control group.

SECTION : 4

Comparison of pre test and post test levels of knowledge and attitude score regarding organ donation among Arts students in both experimental and control group.

SECTION : 5

Comparison of experimental and control group levels of knowledge and attitude regarding organ donation among the Arts students.

SECTION : 6

Assessment of correlation between the post test scores of knowledge and attitude regarding organ donation among the Arts students in both experimental and control group.

SECTION : 7

Association between the pre test levels of knowledge and attitude scores regarding organ donation among Arts students with their age of the student, gender, religion, domiciliary area, medium of instruction, residential area and source of information.

PRESENTATION OF DATA

SECTION : I

Assessment of demographic variables of the Arts students regarding organ donation.

TABLE: 4.1 Represents the frequency and percentage distribution of demographic variables of Arts students regarding organ donation in both experimental and control groups.

N=40(E)+40(C) =80

DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Age in years				
17-18 years	34	85%	27	67.5%
19-20 years	4	10%	10	25%
21-22 years	2	5%	3	7.5%
Gender				
Male	22	55%	21	52.5%
Female	18	45%	19	47.5%
Religion				
Hindu	37	92.5%	34	85%
Muslim	1	2.5%	1	2.5%
Christian	2	5%	5	12.5%
Domiciliary Area				
Urban	17	42.5%	15	37.5%
Rural	21	52.5%	14	35%
Semi Urban	2	5%	11	27.5%

Medium of education				
Tamil	32	80%	34	85%
English	8	20%	6	15%
Residential area				
Day scholar	13	32.5%	17	42.5%
Hosteller	27	67.5%	23	57.5%
Source of information				
Health personnel	3	7.5%	3	7.5%
Mass media	28	70%	27	67.5%
Relative	9	22.5%	10	25%

Table : 4.1 above represents thefrequency and percentage distribution of demographic variables of Arts students regarding organ donation in both experimental and control groups.

This table revealed that regarding the age of the students maximum 34(85%) students were in age group of (17-18 yrs), 4(10%) students were in age of (19-20 yrs), 2(5%), students were in age group of (21-22 yrs), in experimental group. Where as in control group of (17-18 yrs), 10(25%) students were in group of (19-20 yrs), 3(7.5%) students were in age group of (21-22 yrs).

Regarding the gender the maximum 22(55%) students were male and 18(45%) students were female in experimental group. Where as in control group the maximum 21(52.5%) students male and 19(47.5%) students were female.

Regarding the religion the maximum 37(92.5%) students were Hindu, 2(2.5%) students were Christian and 1(2.5%) students were Muslim in experimental group. Where as in control group the maximum 34(85%) students

were Hindu, 5(12.5%) students were Christian and 1(2.5%) students were Muslim.

Regarding the domiciliary area the maximum 17(42.5%) students were Urban, 21(52.5%) students were Rural and 2(5%) students were Semi Urban in experimental group. Where is in control group 15(37.5%) students were Urban 14(35%) students were Rural and 11(27.5%) students were Semi Urban.

Regarding the medium of education in schooling the maximum 32(80%) students were from Tamil medium and 8(20%) students were from English medium in experimental group. Where as in control group the maximum 34(85%) students were Tamil medium and 6(15%) students were English medium.

Regarding the residential area 13(32.5%) students were in days scholar ans maximum 27(67.5%) students were hosteller in experimental group. Where as in control group 17(42.5%) students were days scholar and maximum 23(57.5%) students were in hosteller.

Regarding the source of information 3(7.5%) students were gaining information from health personnel, maximum 28(70%) students were gaining information from mass media and 9(22.5%) students were gaining information from relatives in experimental group. Where as in control group 3(7.5%) students were gaining information from health personnel, maximum 27(67.5%) students were gaining information from mass madia and 10(25%) students were gaining information from relatives.

Figure 4.1 Represents the percentage distribution of age of the Arts students in experimental and control group**.**

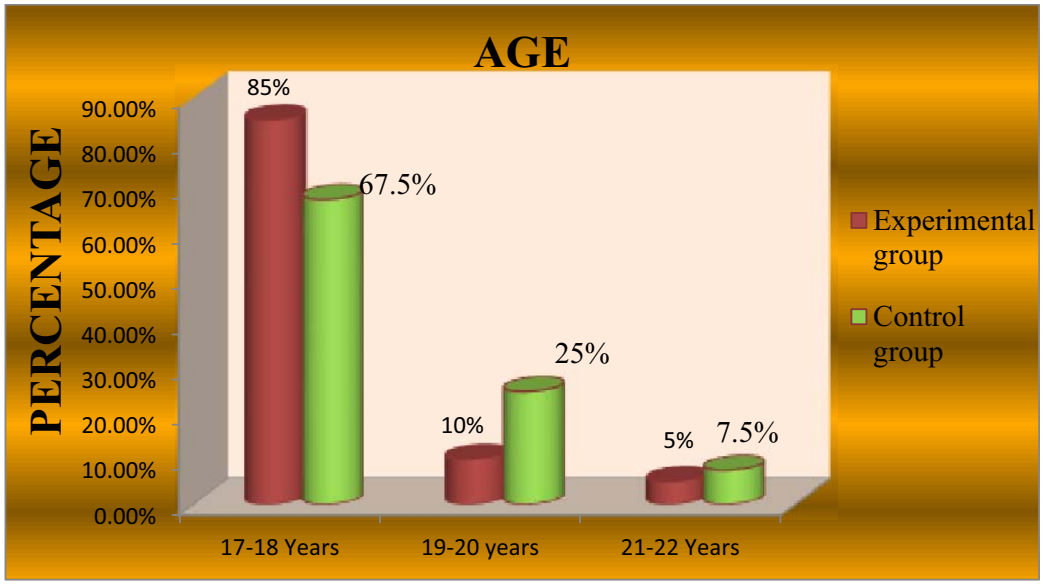


Figure 4.2 Represents the percentage distribution of gender of the Arts student in experimental and control group.

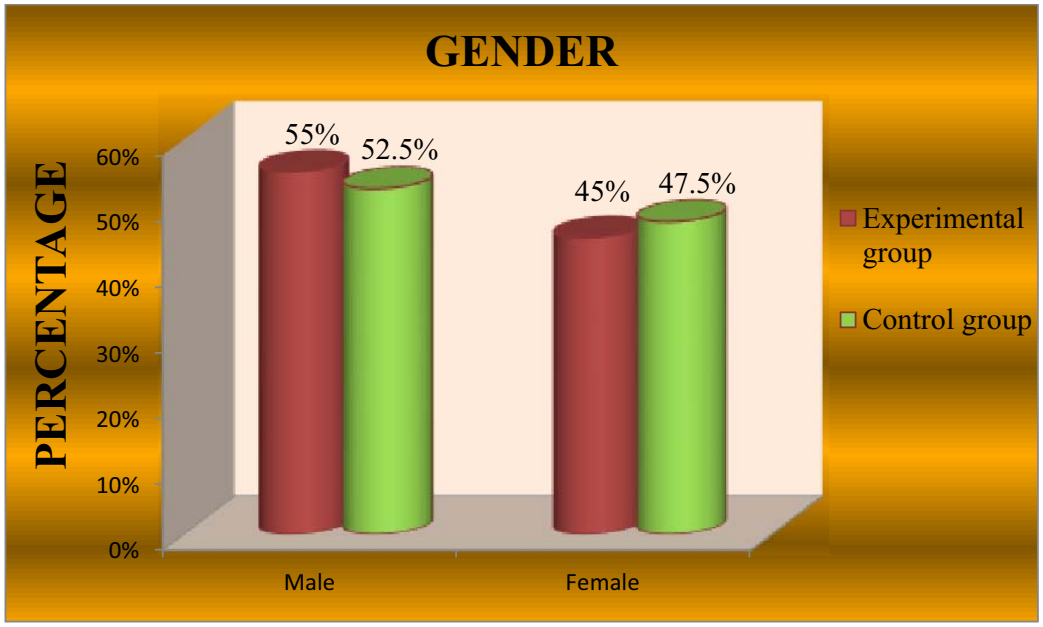


Figure 4.3 Represents the percentage distribution of religion of the Arts students in experimental and control group.

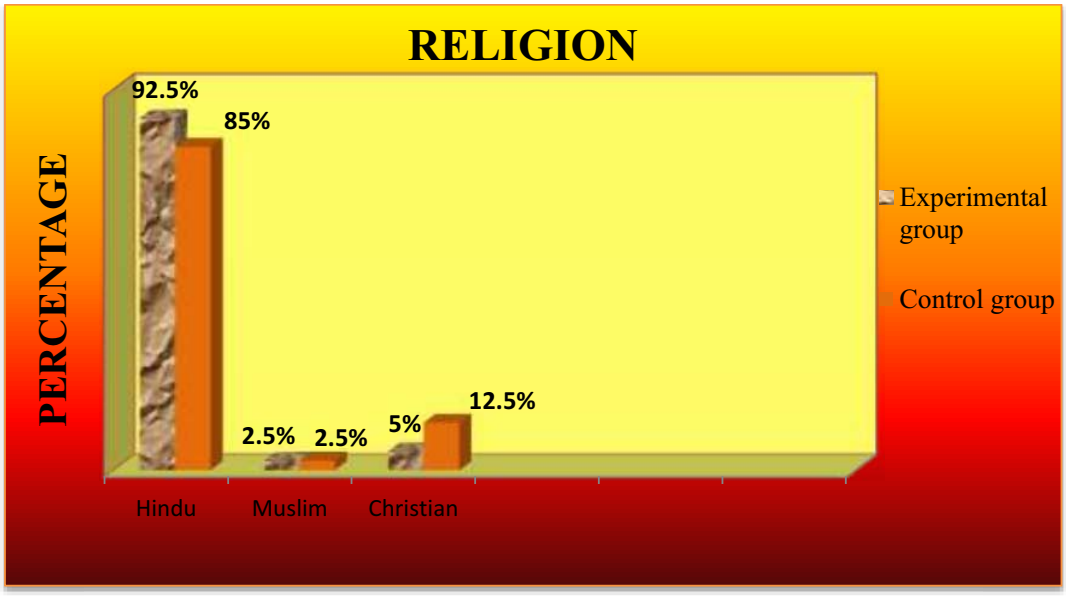


Figure 4.4 Represents the percentage distribution of domiciliary area of the Arts students in experimental and control group.

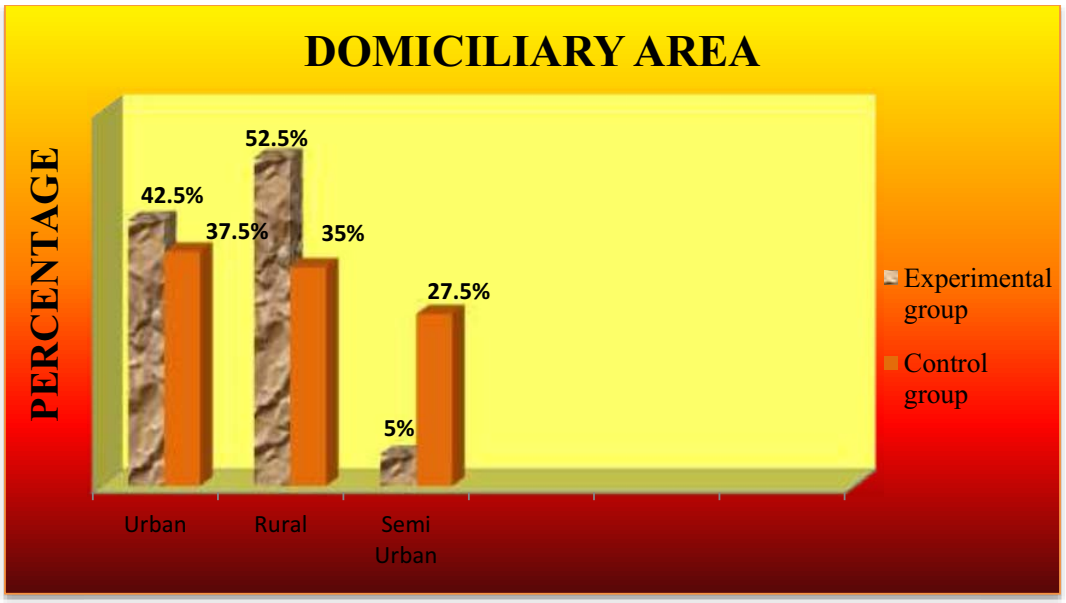


Figure 4.5 Represents the percentage distribution of medium of education of the Arts students in experimental and control group.

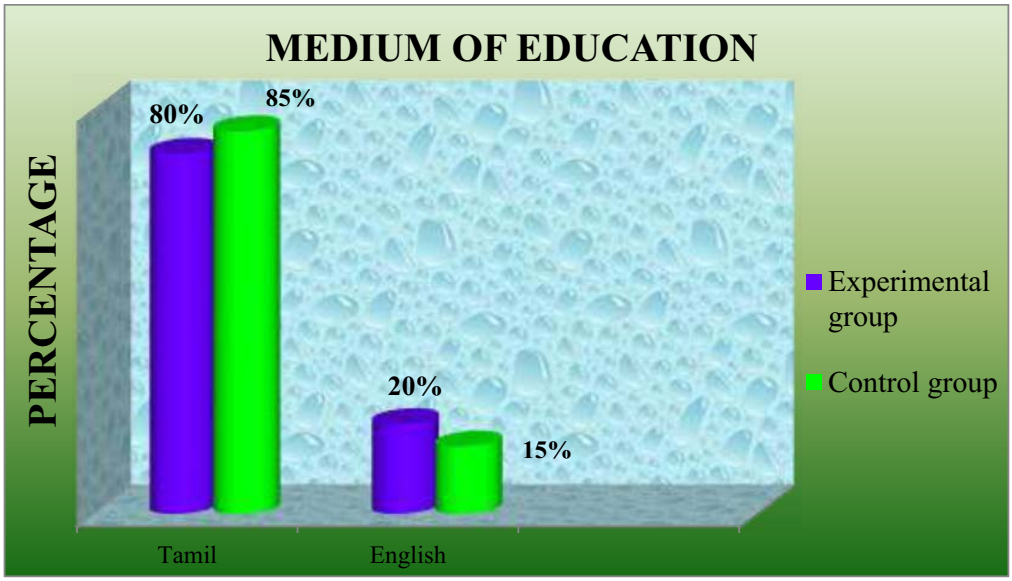


Figure 4.6 Represents the percentage distribution of residential area of Arts students in experimental and control group.

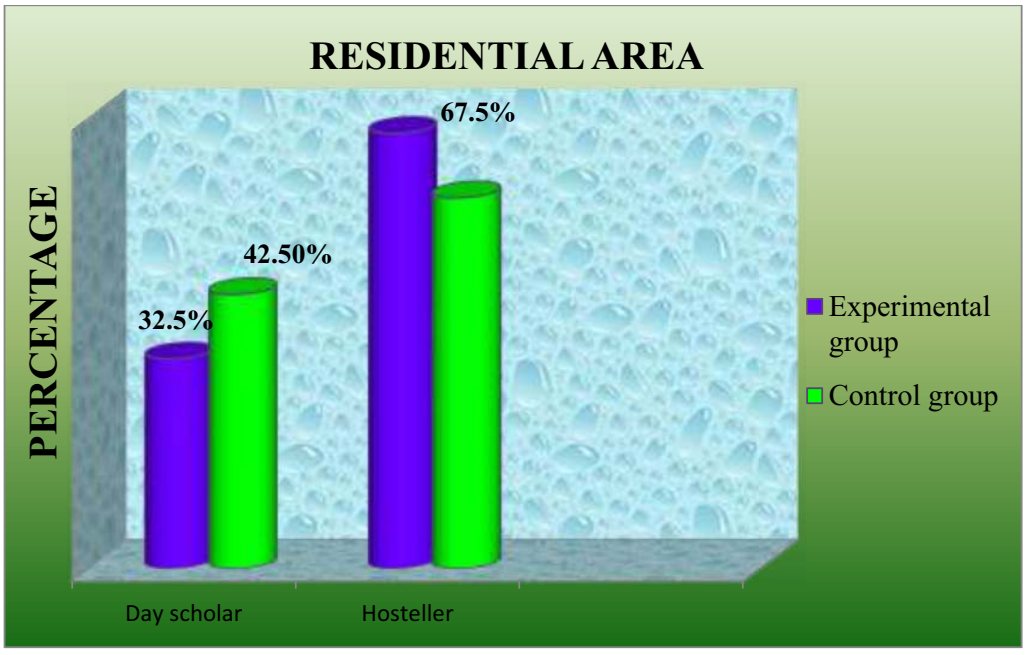
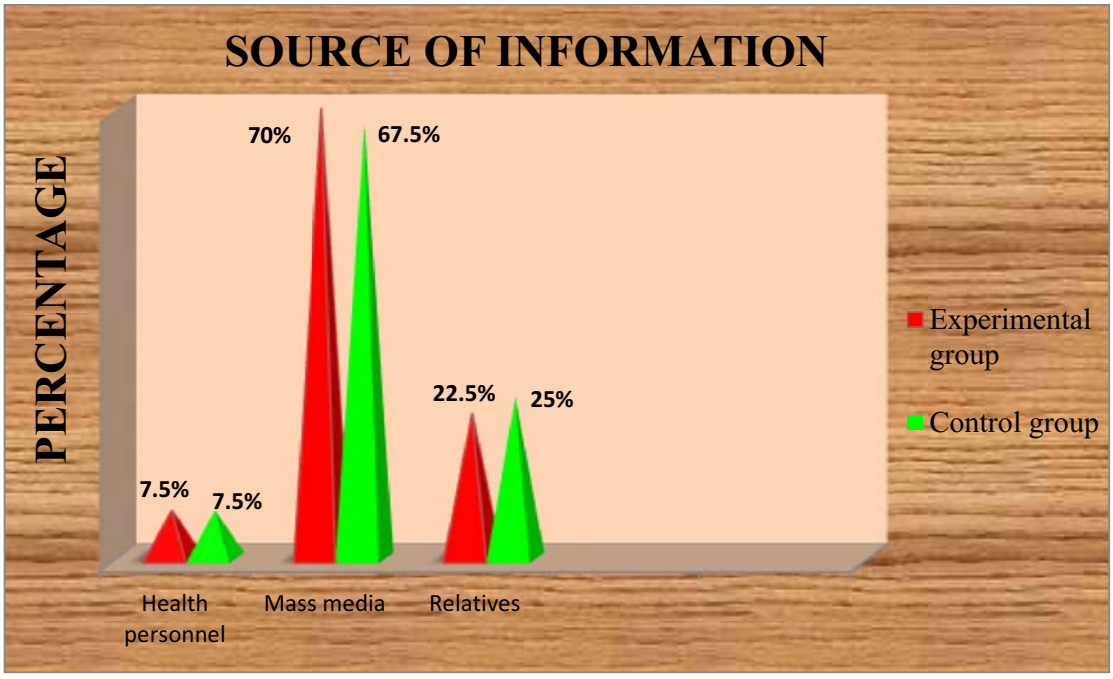


Figure 4.7 - Represents the percentage distribution of source of information of the Arts student in experimental and control group.



SECTION : 2

Assessment of pre test levels of knowledge and attitude regarding organ donation among the Arts students in both experimental and control group.

TABLE : 4.2 Represent frequency and percentage distribution of pre test levels of knowledge among the Arts students regarding organ donation in both experimental and control group.

N=40(E)+40(C)=80

LEVELSOF KNOWLEDGE	**EXPERIMENTAL GROUP**		**CONTROL GROUP**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Inadequate knowledge	30	75%	31	77.5%
Moderately adequate knowledge	10	25%	9	22.5%
Adequate knowledge	-	-	-	-

Table 4.2 Represents the Frequency and percentage distribution of pre test levels of knowledge regarding organ donation among the Arts student.

The assessment of pre test level of knowledge regarding the organ donation reveals that 30(75%) of the student had inadequate knowledge and 10(25%) of the students had moderately adequate knowledge in experimental group. Where as in the control group 31(77.5%) of the student had inadequate knowledge and 9(22.5%) of the students had moderately adequate knowledge and none of them had adequate knowledge in both the experimental and control group.

TABLE : 4.3 Represent the frequency and percentage distribution of pre test levels of attitude among the Arts students regarding organ donation in both experimental and control group.

N = 40(E) + 40 (C) =80

LEVELS OF ATTITUDE	**EXPERIMENTAL GROUP**		**CONTROL GROUP**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Inadequate attitude	34	85%	33	82.5%
Moderately adequate attitude	6	15%	7	17.5%
Adequate attitude	-	-	-	-

Table 4.3 Represents the Frequency and percentage distribution of pre test levels of attitude among the Arts students regarding organ donation in both experimental and control group.

The assessment of pre test level of attitude regarding the organ donation revealed that 34(85%) of the student had inadequate attitude and 6(15%) of the students had moderately adequate attitude in experimental group. Where as in the control group 33(82.5%) of the student had inadequateattitude and 7(17.5%) of the students had moderately adequate attitude and none of them had adequate attitudein both the experimental and control group.

SECTION : 3

Assessment of post test levels of knowledge and attitude regarding organ donation among the Arts student in both experimental and control group.

TABLE : 4.4 Represent frequency and percentage distribution of post test levels of knowledge among the Arts students regarding organ donation in both experimental and control group.

N = 40 (E)+ 40 (C) =80

LEVELS OF KNOWLEDGE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage(%)
Inadequate knowledge	-	-	27	67.5%
Moderately adequate knowledge	15	37.5%	13	32.5%
Adequate knowledge	25	62.5%	-	-

Table 4.4 Represents the Frequency and percentage distribution of post test levels of knowledge among the Arts students regarding organ donation in both experimental and control group.

The assessment of post test level of knowledge regarding the organ donation revealed that none of themhad inadequate knowledge, 15(37.5%) of the students had moderately adequate knowledge and 25(62.5%) of the students had adequate knowledge in experimental group. Where as in the control group 27(67.5%) of the student had inadequate knowledge and 13(32.5%) of the students had moderately adequate knowledge and none of them had adequate knowledge in the control group.

TABLE : 4.5 Represent the frequency and percentage distribution of post test levels of attitude among the Arts students regarding organ donation in both experimental and control group.

N = 40(E)+ 40 (C) =80

LEVELS OF ATTITUDE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Inadequate attitude	-	-	30	75%
Moderately adequate attitude	23	57.5%	10	25%
Adequate attitude	17	42.5%	-	-

Table 4.5 Represents the Frequency and percentage distribution of post test levels of attitude among the Arts students regarding organ donation in both experimental and control group.

The assessment of post test level of attitude regarding the organ donation revealed that none of them had inadequate attitude.23(57.5%) of the students had moderately adequate attitude and 17(42.5%) of the students had adequate knowledge in experimental group. Where as in the control group 30(75%) of the student had inadequate attitude and 10(25%) of the students had moderately adequate attitude and none of them had adequate attitude in control group.

SECTION : 4

Comparison of pre and post test levels of knowledge and attitude regarding organ donation among the Arts students in both experimental and control group.

TABLE 4.6 Comparison of pre and post test levels of knowledgeregarding organ donation among the Arts student in both experimental and control group.

N = 40(E)+ 40 (C) =80

GROUP	PRE TEST		POST TEST		Paired "t" test value
	MEAN	SD	MEAN	SD	
Experimental group	10.65	3.15	23.47	4.20	t = 21.73**
Control group	11.1	3.33	11.75	3.87	t = 1.64 *

H0- There is no significant association between the pre test and post test levels of knowledge regarding organ donation among the Arts student in both experimental and control group.

Table 4.6 Comparison of pre test and post test revealed that mean value 10.65 with standard deviation 3.15 of pre test has significantto the post test mean value 23.47 with standard deviation 4.20 and the 't' value CV = 21.73and TV = 2.0010 (CV > TV) which is significant at 0.05 level of experimental group. Where as in the control group the analysis that mean value 11.1 with standard deviation 3.33 of pre test has significant to the post test mean value 11.75 with standard deviation 3.87 and the 't' value CV = 1.66and TV = 2.0010 (CV > TV) which is not significant at 0.05 level for control group.

Since the experimental group there is a highly significantdifference in the pre test and post testlevels of knowledgeregarding organ donation among the Arts students,it shows the given computer assisted instruction was very effective.

FIUGRE 4.8 Represents comparison of the pre test and post test knowledge regarding organ donation among the Arts students in both experimental and control group.

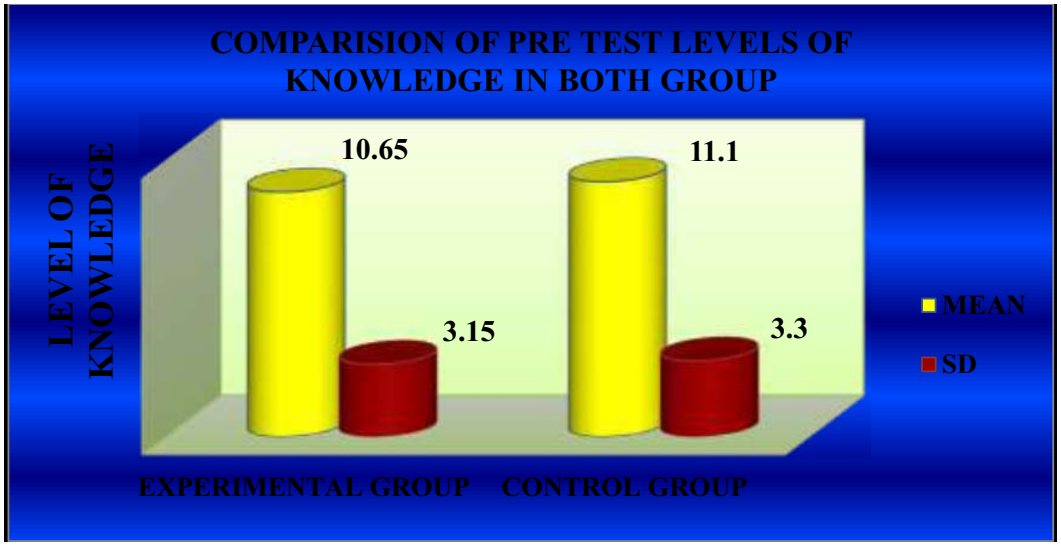


FIGURE 4.9 Represents comparison of the post test level of knowledge regarding organ donation among the Arts students in both experimental and control group.

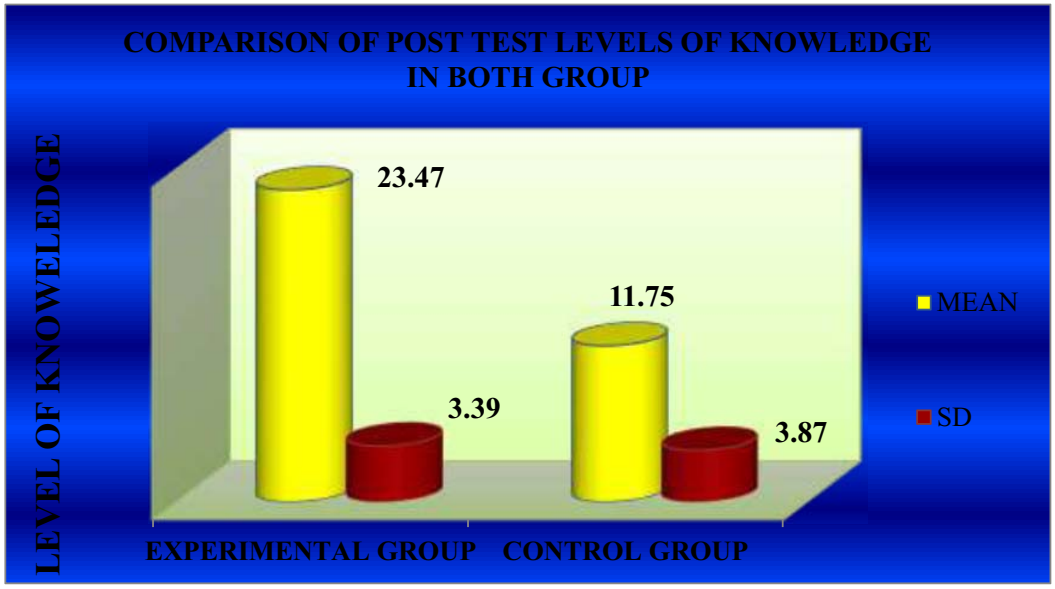


TABLE 4.7 Comparison of pre and post test levels of attitude regarding organ donation among the Arts students in both experimental and control group.

N=40 (E)+40 (C)=80

GROUP	PRE TEST		POST TEST		Paired "t" test value
	MEAN	SD	MEAN	SD	
Experimental group	26.8	8.88	58.87	11.83	t = 19.86**
Control group	26.2	7.11	28.67	10.72	t = 1.13*

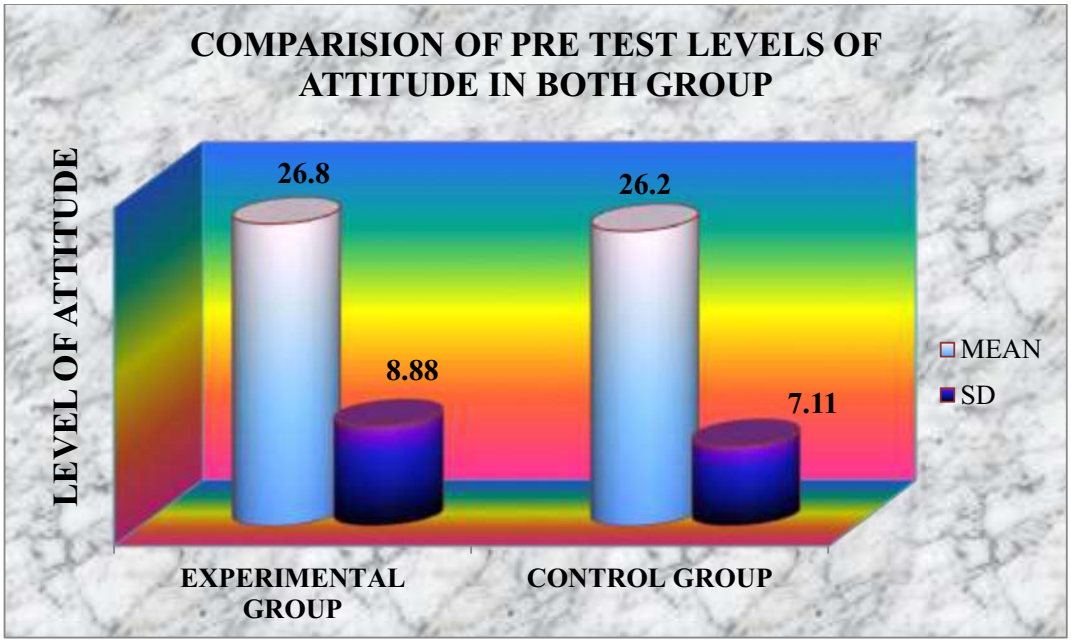
H0- There is no significant association between the pre test and post test levels of attitude regarding organ donation among the Arts students in both experimental and control group.

Table 4.7 Comparison of pre test and post testlevels of attitude regarding organ donation among the Arts students in bpth experimental and control group.

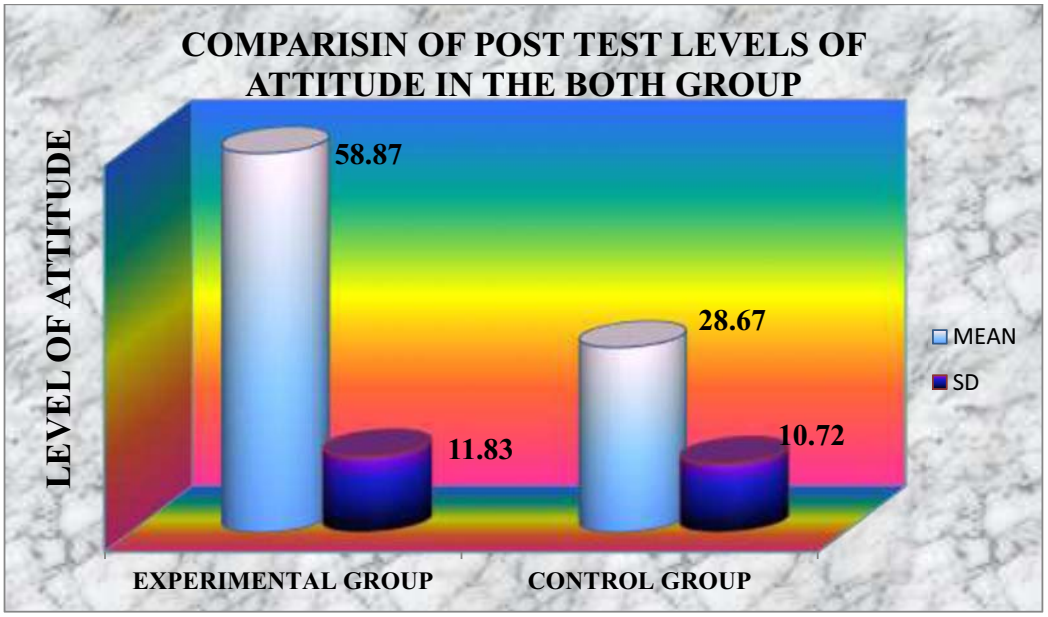
The analysis reveals that mean value 26.8with standard deviation 8.88 of pre test has significant to the post test mean value 58.87 with standard deviation 11.83 and the 't' value CV = 19.86and TV = 2.0227 (CV > TV) which is significant at 0.05 level for experimental group. Where as in the control group the analysis that mean value 26.2with standard deviation 7.11 of pre test has significant to the post test mean value 28.67with standard deviation 10.72and the 't' value CV = 1.16and TV = 2.0227 (CV > TV) which is not significant at 0.05 level for control group.

Since the experimental group there is a highly significantdifference in the pre test and post test levels of attitude regarding hazards of use of plastic products among the rural school children ,it shows the given computer assisted instruction was very effective.

FIUGRE 4.10 Represent comparison of pre test attitude regarding organ donation among the Arts students in both experimental and control group.



FIUGRE 4.11 Represent comparison of post test attitude regarding organ donation among the Arts students in both experimental and control group.



SECTION : 5

Comparison of experimental and control group levels of knowledge and attitude regarding organ donation among the Arts students.

TABLE 4.8 Comparison of experimental and control group levels of knowledge regarding organ donation among the Arts students .

N=40 (E)+40 (C)=80

TEST	EXPERIMENTAL GROUP		CONTROL GROUP		Unpaired "t" test value
	MEAN	SD	MEAN	SD	
PRE TEST	10.65	3.15	11.1	3.33	t = 0.65*
POST TEST	23.47	4.20	11.75	3.87	t=13.16**

H_0 - There is no significant difference in the pre test and post test levels of knowledge between the experimental and control group.

Table 4.8 Comparison of pre test and post test levels of knowledge regarding organ donation among the Arts students in both experimental and control group.

The analysis revealed that pre test mean value 10.65 with standard deviation 3.15 in the experimental group and the mean value 11.1 with standard deviation 3.33 in the control group and the 't' value CV = 0.65 and TV = 2.0227 (CV > TV) which is not significant at 0.05 level .For the post test mean value 23.47with 4.20standard deviation in experimental group ,where as in the control group the mean value 11.75 with standard deviation 3.87and the 't' value CV = 13.16and TV = 2.0227 (CV > TV) which is significant at 0.05 level.

The statistical analysis revealed that there is a highly significant difference in the post test levels of knowledge of experimental as compared with the control group. So the given computer assisted instruction was effective.

FIGURE 4.12 Represent comparison of experimental and control group pre test level of knowledge regarding organ donationamong the Arts student.

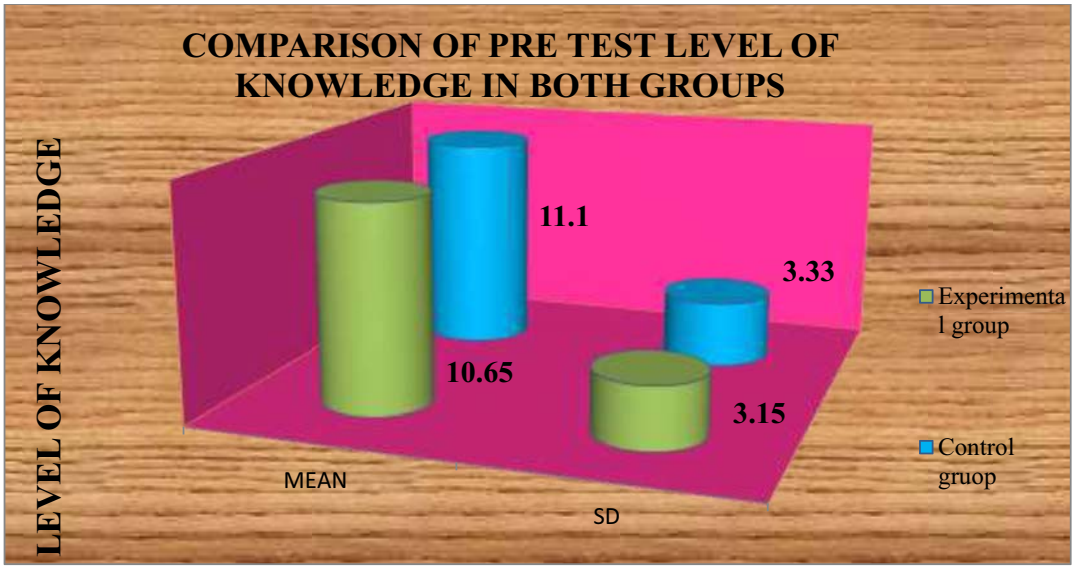


FIGURE 4.13 Represent comparison of experimental and control group post test level of knowledge regarding organ donation among the Arts students.

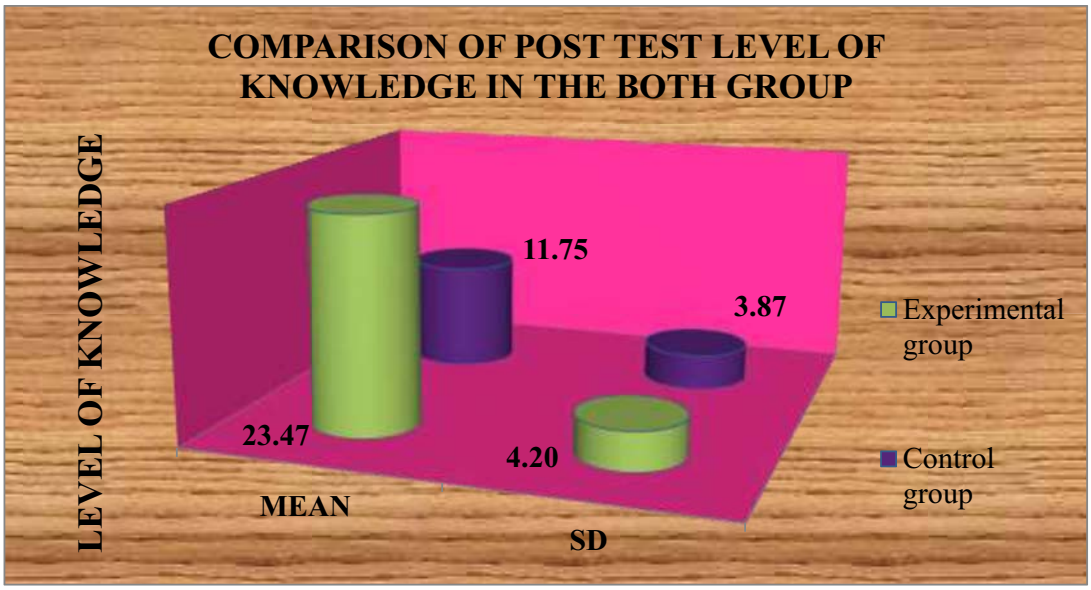


TABLE 4.9 Comparison of experimental and control group levels of attitude regarding organ donation among the Arts students.

N=40(E)+40(C)= 80

TEST	EXPERIMENTAL GROUP		CONTROL GROUP		Unpaired "t" test value
	MEAN	SD	MEAN	SD	
PRE TEST	26.8	8.88	26.2	7.11	t = 0.33*
POST TEST	58.87	11.83	28.67	10.72	t=12.17**

H_0 - There is no significant difference in the pre test and post test levels of attitude regarding organ donation among the Arts students.

Table 4.9 Represents the comparison of pre test and post test levels of attitude between the experimental and control group.

The analysis revealed that the pre test mean value 26.8with standard deviation 8.88 in the experimental group and the mean value 26.2 with the standard deviation 7.11 in the control group and the 't' value CV = 0.33 and TV = 2.0227(CV < TV) which is not significant at 0.05 level . For the post test mean value 58.87 with 11.83standard deviation in experimental group ,where as in the control group the mean value 28.67with standard deviation 10.72 and the 't' value CV = 12.17and TV = 2.0227 (CV > TV) which is significant at 0.05 level.

The statistical analysis revealed that there is a highly significant difference in the post test levels of attitude of experimental as compared with the control group. So the given computer assisted instruction was effective .

FIGURE 4.14 Represent comparison of experimental and control group pre test level of attitude regarding the organ donation among the Arts students.

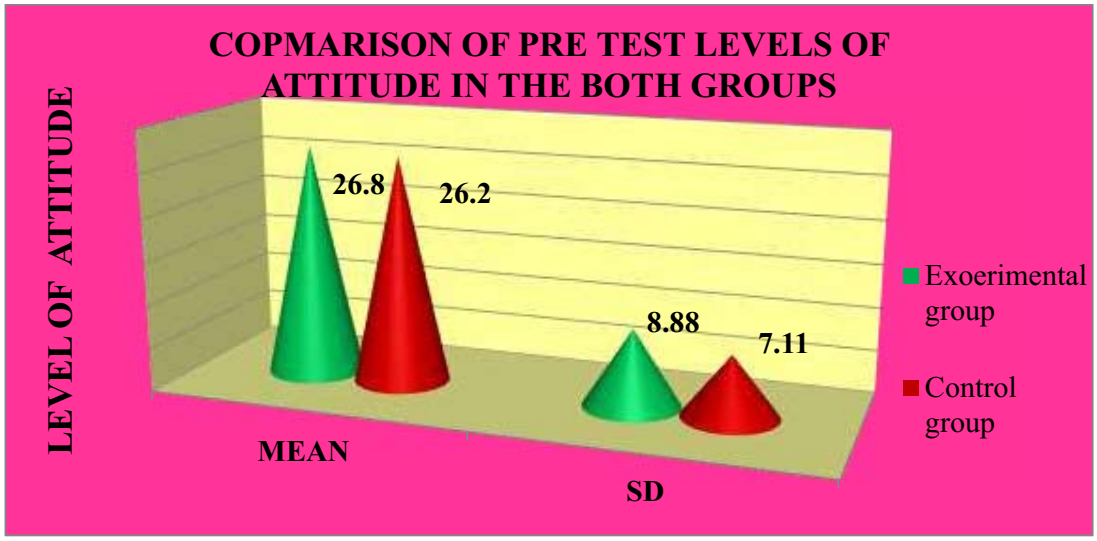
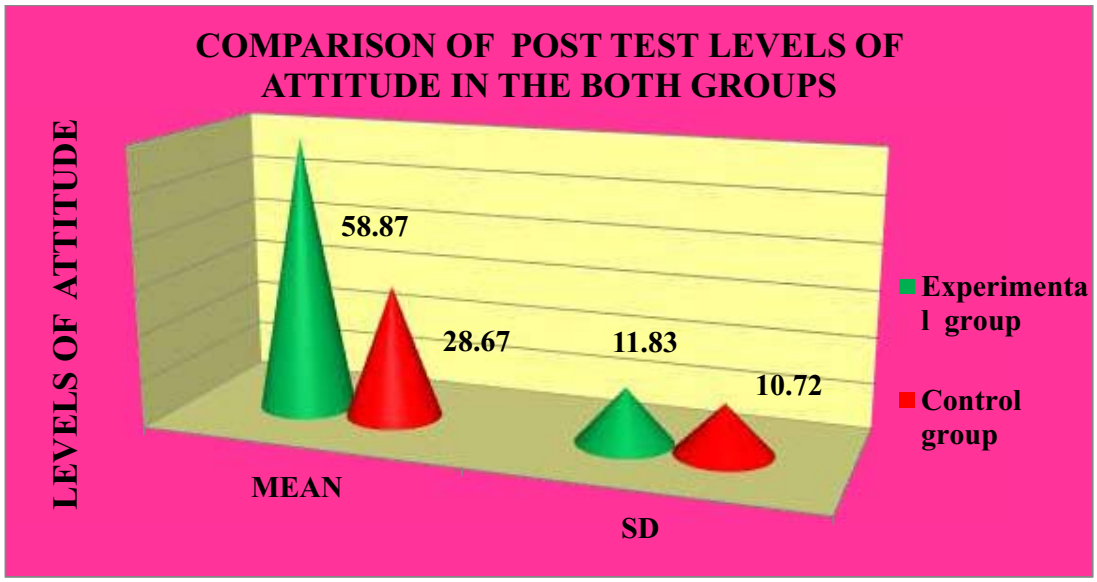


FIGURE 4.15 Represent comparison of experimental and control group post test level of attitude regarding the organ donation among the Arts students.



SECTION – 6

Assessment of correlation between the post test scores of knowledge and attitude regarding organ donation among the Arts studentsin both experimental and control group.

TABLE 4.10 Assessment of correlation between the post test scores of knowledge and attitude regarding organ donationamong the Arts studensin both experimental and control group. **N =40(E) +40(C) = 80**

GROUP	POST TEST		POST TEST		" r" value
	MEAN	SD	MEAN	SD	
Experimental group	23.47	4.20	58.87	11.83	**r = 0.8**positive and highly significant.
Control group	11.75	3.87	28.67	10.72	**r = 0.3**positiveand moderate significant

Table 4.10 Represents the correlation between the post test scores of knowledge andattitude regardin organ donation among the Arts students in both experimental and control group.

In experimental group the mean value knowledge represents 23.47 with standard deviation 4.20 and the mean value of expressed practice 58.87 with standard deviation 11.83 and the correlation r = 0.8 which is positive and highly significance for post test scores. Where as in control group the mean value of knowledge 11.75 with standard deviation 3.87 and the mean value of attitude 28.67 with standard deviation 10.72 and the correlation r = 0.3 which is positive and moderate significance for post test scores ofknowledge and attitude .Hence there is a positive and highly significant correlation between the knowledge and attitude of experiment group. It reveals the given CAI was effective.

SECTION : 7

Association of the association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts students in both experimental and control group.

TABLE : 4.11 Association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts students in both experimental group with their selected demographic variables.

N=40

Demographic Variables	Level of knowledge						χ^2	Level of attitude						χ^2
	Inadequate		Moderately adequate		Adequate			Inadequate		Moderately adequate		Adequate		
	NO	%	NO	%	NO	%		NO	%	NO	%	NO	%	
Age														
17-18 yrs	25	62.5	9	22.5	-	-	0.7058	31	77.5	3	7.5	-	-	11.9966
19-20 yrs	3	7.5	1	2.5	-	-	(NS)	1	2.5	3	7.5	-	-	(S)
20-22 yrs	2	5	-	-	-	-		2	5	-	-	-	-	
Gender														
Male	18	45	4	10	-	-	0.1363	20	50	2	5	-	-	1.3387
Female	12	30	6	15	-	-	(NS)	14	35	4	10	-	-	(NS)
Religion														
Hindu	28	70	9	22.5	-	-	0.0090	32	80	5	12.5	-		2.1621
Muslim	1	2.5	-	-			(NS)	1	2.5	-	-	-		(NS)
Christian	1	2.5	1	2.5	-	-		1	2.5	1	2.5	-		
Domiciliary area														
Urban	12	30	5	12.5	-	-	0.8588	14	35	3	7.5	-	-	2.4527
Rural	16	40	5	12.5	-	-	(NS)	19	47.5	2	5	-	-	(NS)
Semi Urban	2	5	-	-	-	-		1	2.5	1	2.5	-	-	

Medium of education														
Tamil	28	70	4	10	-	-	7.3332	31	77.5	1	2.5	-	-	17.6959
English	2	5	6	15	-	-	(S)	3	7.5	5	12.5	-	-	(S)
Residential area														
Day scholar	5	12.5	8	20	-	-	13.713	7	17.5	6	15	-	-	14.6606
Hosteller	25	62.5	2	5	-	-	1 (S)	27	67.5	-	-	-	-	(S)
Source of information														
Health	-	-	3	7.5	-	-	13.862	-		3	7.5	-	-	18.9915
personnel							4 (S)							(S)
Mass media	25	62.5	3	7.5	-	-		25	62.5	3	7.5	-	-	
Relatives	5	12.5	4	10	-	-		9	22.5	-	-	-	-	

H_0 - there is no significant association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts student in experimental group with their selected demographic variables.

Table 4.11 Shows the association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts student in both experimental group with their selected demographic variables.

The analysis revealed that there is a significant association between the medium of education, residential area and source of information of pre test level of knowledge and there is no significant association between the age of the student, gender, religion,and domiciliary area in experimental group. Where as in pre test level of attitude reveal that there is a significant association between the age of the student, medium of education, residential area and source of information and there is no significant association between the gender, religion and domiciliary area in experimental group at the significant level of 0.05 level.

TABLE 4.12

Association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts student in both control group with their selected demographic variables.

N = 40

Demographic Variables	Level of knowledge						χ^2	Level of attitude						χ^2
	Inadequate		Moderately adequate		Adequate			Inadequate		Moderately adequate		Adequate		
	NO	%	NO	%	NO	%		NO	%	NO	%	NO	%	
Age														
17-18 yrs	25	62.5	2	5	-	-	15.616	26	65	1	2.5	-	-	12.0889
19-20 yrs	6	15	4	10	-	-	3 (S)	6	15	4	10	-	-	(S)
20-22 yrs	-	-	3	7.5	-	-		1	2.5	2	5	-	-	
Gender														
Male	18	45	3	7.5	-	-	1.7107	18	45	3	7.5	-	-	0.3163
Female	13	3..5	6	15	-	-	2 (NS)	15	37.5	4	10	-	-	(NS)
Religion														
Hindu	27	67.5	7	17.5	-	-	1.2397	29	72.5	5	12.5	-	-	2.1492
Muslim	1	2.5	-	-			(NS)	1	2.5	-	-	-	-	(NS)
Christian	3	7.5	2	5	-	-		3	7.5	2	5	-	-	
Domiciliary area														
Urban	12	30	3	7.5	-	-	2.5897	11	27.5	4	10	-	-	1.9165
Rural	9	22.5	5	12.5	-	-	(NS)	9	22.5	2	5	-	-	(NS)
Semi Urban	10	25	1	2.5	-	-		13	32.5	1	2.5	-	-	
Medium of education														
Tamil	29	72.5	5	12.5	-	-	7.8964	30	75	4	10	-	-	5.5226
English	2	5	4	10	-	-	(S)	3	7.5	3	7.5	-	-	(S)

Residential area														
Day scholar	10	25	7	17.5	-	-	5.9139	13	32.5	4	10	-	-	6.7443
Hosteller	21	21	2	7.5	-	-	(NS)	20	50	3	7.5	-	-	(S)
Source of information														
Health	-	-	3	7.5	-	-	13.862	-	-	3	7.5	-	-	18.9915
personnel							4 (S)							(S)
Mass media	25	62.5	3	7.5	-	-		25	62.5	3	7.5	-	-	
Relatives	5	12.5	4	10	-	-		9	22.5	-	-	-	-	

H_0 - there is no significant association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts student in both control group with their selected demographic variables.

Table 4.12 Shows the association between the pre test levels of knowledge and attitude scores regarding organ donation among the Arts student in both control group with their selected demographic variables.

The analysis revealed that there is a significant association between the age of the student, medium of education and source of information of pre test level of knowledge and there is no significant association between the gender, religion, domiciliary area and residential area in control group. Where as in pre teat level of attitude reveals that there is a significant association between the age of the students, residential area and source of information and there is no significant association between the gender, religion, domiciliary area and medium of education in control group at the significant level of 0.05 level.

CHAPTER – V

DISCUSSION

CHAPTER – V
DISCUSSION

This chapter deals about the discussion of the study based on the objectives and the hypothesis of the study with the appropriate statistical analysis and the findings of the study.

The study was a quasi experimental – non equivalent(pre testpost test control group) design . The problem stated as " A study to assess the effectiveness of computer assisted instruction on knowledge and attitude regarding organ donation among the Arts student at selected Arts and Science Colleges, Thanjavur.

The study was conducted for 80 students in which 40 students are assigned to experimental group and 40 students are assigned to control group. Arts and Science Colleges are selected by total population sampling technique. The study was conducted among the final year B.A English student.

Samples are selected by using total sampling technique. Pre test was conducted by using the semi structured knowledge questionnaire to assess the knowledge and attitude of the students was assessed by using likert scale for both group .II day computer assisted instruction was given to the students only to the experimental group. After one week the post test was conducted by using the same questionnaire and likert scale for experimental and control group.

The first objective to assess the knowledge and attitude before and after providing computer assisted instruction regarding organ donation among the Arts students in experimental and control groups.

Assessment of pre test level of knowledge was 30 (75%) of the student had inadequate knowledge and 10(25%) of the students had moderately adequate knowledge. In attitude 34(85%) had inadequate attitude and 6(15%) students had moderately adequate attitude in experimental group. Whereas in

the control group the pre test level of knowledge was 31(77.5%) students had inadequate knowledge and 9(22.5%) of the students had moderately adequate knowledge. In attitude 33(82.5%) students had inadequate attitude and 7(17.5%) had moderately adequate attitude and none of them had reported adequate knowledge and attitude regarding organ donation in both experimental and control group.

Assessment of post level of knowledge was 15(37.5%) students had moderately adequate knowledge and 25(62.5%) students had adequate knowledge. In attitude 23(57.5%) students had moderately adequate attitude and 17(42.5%) students had adequate attitude in experimental group. Whereas in control group post test level of knowledge were 27(67.5%) students had inadequate knowledge and 13(32.5%) students had moderately adequate knowledge. In attitude 30(75%) students had inadequate attitude and 10(25%) students had moderately adequate attitude and none of them had reported adequate knowledge and attitude regarding organ donation.

Hence the experimental group had improvement in their levels of knowledge and attitude regarding organ donation.

The second objective to evaluate the effectiveness of Computer Assisted Instruction regarding the organ donation among the Arts student in experimental and control groups.

In experimental group the mean pre test value for knowledge was 10.65 with SD 3.15 of in post test mean value 23.47 with SD 4.20 and the projecte ‘t’ value CV = 21.73 and TV = 2.0227 (CV > TV) at 0.05 level . Where as in pre test level of attitude the mean value 26.8 with SD 8.88,In post test mean value 58.87 with SD 11.83 and the projected ‘t’ value CV = 19.84 and TV = 2.0227 (CV > TV) at 0.05 level. It proves that there is a significant difference between the pre and post test level of knowledge and attitude regarding organ donation in experimental group. Hence the given CAI was effective.

In control group the mean pre test level of knowledge was 11.1 with SD 3.33 in post the mean value was 11.75 with SD 3.87 and the projected 't' value CV = 1.64 and TV = 2.0227 (CV < TV) at 0.05 level. Where as in pre test level of attitude the mean value was 26.2 with SD 7.11in post test the mean value was 28.67 with SD 10.72 and the projected 't' CV = 1.64 and TV = 2.0227 (CV < TV at 0.05 level. It proves that there is no significant difference between the pre test and post test knowledge and attitude regarding organ donation in control group.

Hence the research hypothesis H_1 states that there is a significant difference between the pre test and post test level of knowledge and attitude regarding organ donation among the students was accepted with the experimental group but the same it is rejected to the control group.

The third objective to compare the post test scores of knowledge and attitude between the experimental and control group .

In the pre test mean levels of knowledge of experimental group 10.65 with SD 3.15 and for the control group the mean value was 11.1 with SD 3.33 and the projected 't' value CV = 0.65 and TV = 2.0227 (CV < TV) at 0.05 level. In the post test mean levels of knowledge of experimental group 23.47 with SD 4.20 and for control group 11.75 with SD 3.38 and the projected 't' value CV = 13.16 and TV = 2.0227 (CV > TV) at 0.05 level .

In the pre test mean levels of attitude of experimental group 26.8 with SD 8.88 and for the control group the mean value 26.2 with SD 7.11 and the projected 't' value CV = 0.33 and TV = 2.0227 (CV < TV) at 0.05 level. In the post test mean levels of attitude of experimental group 58.87 with SD 11.83 and for control group 28.67 with SD 10.72 and the projected 't' value CV = 12.17 and TV = 2.0227 (CV > TV) at 0.05 level. It proves that there is a significant difference between the post test level of attitude in experimental group.

Research hypothesis H_2 states that there is a significant difference in the post test levels of knowledge and attitude between the experimental and control group regarding organ donation among the Arts student. Hence the research hypothesis H_2 was accepted but the same it is rejected to the pre test levels of knowledge and attitude between the experimental and control group.

The fourth objective to correlate the post test scores of knowledge and attitud regarding the organ donation among the Arts student in experimental and control groups.

In the experimental group the mean post value of knowledge was 23.47 with SD 4.20 and for attitude the value was 58.87 with SD 11.83. And 'r' value 0.8 it revealed that there was a positive and highly significant correlation. Whereas in control group the mean post test value of knowledge was 11.75 with SD 3.87 and in attitude the mean value 28.67 with SD 10.72 and 'r' value 0.3 it revealed that there was a positive and moderate correlation between post test scores of knowledge and attitude regarding organ donation.

So the research hypothesis H_3 there is an significant correlation between the post test scores of knowledge and attitude regarding organ donation among the students in experimental and control group was accepted.

The fifth objective to determine the association between the pre test level of knowledge and attitude regarding organ donation among the Arts students with their selected demographic variable in experimental and control group.

In the experimental group there was no significant association between the pre test level of knowledge with the age of the student, religion, domiciliary area, medium of education and residential area. Where as in attitude was no significant association between in age of the student, gender, religion, domiciliary area, medium of education and residential area. In control

group there was no significant association between the pre test level of knowledge with the age of the student, gender, religion, domiciliary area, medium of education and residential area. Where as in attitude there was no significant association in age of the student, gender, religion, domiciliary area, medium of education and residential area. So the research hypothesis H_4 was rejected.

Hence in experimental group there was a significant association between the knowledge with medium of education, residential area and source of information and for attitude there was a significant association with age of the student, medium of education, residential area and source of information. Where as in control group there was a significant association with age of the student, medium of education and source of information in the knowledge level and there was a significant association with age of the student, residential area and source of information in the attitude so H_4 was accepted

CHAPTER –VI

SUMMARY & CONCLUSION

CHAPTER –VI

SUMMARY AND CONCLUSION

The present study was conducted to assess the knowledge and attitude of Arts student regarding organ donation.The study was a quasi experimental – non equivalent (pre test post test control group) design. A total 80 students (40bstudents experiment group and 40 students in control group)who meet the inclusion and exclusion criteria as the samples selected from the Arts and Science Colleges, Thanjavur. The samples where selected by total population sampling technique. The investigator first introduced herself to the samples and developed the communication with them. After the selection of Samples the interview conducted with the instruments .

In the pre test the experiment group knowledge level was 30 (75%) of the student had inadequate knowledge and 10 (25%) of the students had moderately adequate knowledge.In attitude 34 (85%) of the student had inadequate attitude and 6 (15%) of the students had moderately adequate attitude.Where as in the control group knowledge level was 31(77.5%) of the student had inadequate knowledge and 9(22.5%) of the students had moderately adequate knowledge . In attitude 33(82.5%) of the student had inadequate attitude and 7(17.5%) of the students had moderately adequate attitude and none of had adequate knowledge and attitude regarding organ donation in both the groups.

In the post test the experiment group knowledge level was 15 (37.5%)of the of the students had moderately adequate knowledge and 25(62.5%) had the adequate knowledge. In attitude 23(57.5%) of the student had moderately adequate attitude and 17(42.5%) of the students had adequate attitude,and none of them had not inadequate knowledge and attitude in experimental group .Where as in the control group knowledge level was 27(67.5%) of the student had inadequate knowledge and 13(32.5.66%) of the students had moderately adequate knowledge . In attitude 30(75%) of the student had inadequate

attitude and 10(25%) of the students had moderately adequate attitude and none of had adequate knowledge and attitude regarding organ donation in control the group.

The statistical analysis reveals the knowledge and attitude of the experiment group was calculated by the paired‘t’ test for knowledge (‘t’ =21.72) and for attitude (‘t’ =19.84). This proves that there was a significant difference in pre test and post test levels of knowledge and attitude for the experiment group at 0.05 level. Where as in control group the knowledge level was (‘t’ =1.65) indicates no difference in knowledge and for attitude (‘t’ =1.16) was revealed there was no difference in pre and post test attitude for the control group at 0.05 level. So the given CAI was effective.

The statistical analysis for the comparison of knowledge and attitude of the experiment group and the control group was calculated by the unpaired ‘t’ test for pre test knowledge (‘t’ =0.6) it showed no difference in knowledge and for attitude (‘t’ =0.3). This proved that there is a no significant difference in attitude . Where as in post test the knowledge level was (‘t’ =13.1) and for attitude(‘t’ =11.8) this revealed that there is a significant difference in post test knowledge and attitude for the experiment and control group.

The statistical analysis for correlation between the post test scores of knowledge and attitude of the experiment and control group was calculated by “Karl Pearson correlation test” stated that in experimental group the post test scores of knowledge mean value is 23.47with SD 4.20 and the post test scores of attitude the mean value is 58.87 with SD 11.83 and the ‘r’ value (r =0.8) it revealed that there is a positive and highly significant correlation between the knowledge and attitude regarding organ donation. In control group the mean post test value of knowledge was 11.75with SD 3.87 and in attitude the mean value 28.67 with SD 10.72 and the ‘r’ value (r = 0.3) it revealed that there was a positive and moderate significant correlation between the knowledge and attitude regarding organ donation.

The statistical analysis to determine the association between the pre test levels of knowledge and attitude regarding organ donation among the Arts student with their selected demographic variables was calculated by using 'chi square test'. The results were stated that in experiment group there was a significant association with medium of education, residential area, toward the knowledge and in attitude there is a significant association with age, medium, of education, residential area. Where as in control group toward the knowledge level there was a significant association with age, medium of education and source of information an in attitude there was a significant association with age, residential area.

CONCLUSION

The main objective of the study was to determine the effectiveness of Computer Assisted Instruction on knowledge and attitude regarding organ donation among the Arts student at selected Arts and Science Colleges, Thanjavur, Dt. The statistical analysis revealed that there was a significant difference between the pre test and post test level of the knowledge and attitude of experiment group ,thus indicated the given Computer Assisted Instruction was effects.

NURSING IMPLICATIONS

The present study had certain nursing implication towards the nursing education, nursing practice ,nursing administration and nursing research as follows.`

NURSING EDUCATION

The nursing education is framed such a way that it equip the nurses with the essential knowledge , attitude and skills for meeting the needs of the society at primary , secondary and tertiary levels.

The nursing curriculum also include the awarness of organ donation. It help the to increase the donor rate, needs to be take action to avoid legal and ethical issues.

NURSING PRACTICE

The nurses working in different health care setting play a vital role in enhancing the quality of life of individual and family members especially in Medical Surgical Unit.

This study will help the Medical and Surgical unit nurses develop their knowledge & skill in awareness or organ donation. It also help the nurses to create awareness among the hospitalized patients and his\her relatives .

The community health nurse involve the home visit to give health education to the family members and adolescents regarding the organ donation.

NURSING ADMINISTRATION

The nursing administration should make necessary initiatives of :

- Collaborate with governing bodies to formulate standard policies and to emphasize the policies to the society.
- Organize the seminars, workshop, conferences regarding organ donation among the nursing staffs and as well as in student nurses .

NURSING RESEARCH

- Promote more research on organ donation among the various settings.
- Disseminates the findings of the research through conferences , seminars and publishing in the journals.

RECOMMENDATIONS

- The comparative study can also be done to assess the effectiveness of CAI among Arts and Engineering college student.
- The study can be done on large sample size to generalize the effectiveness of CAI.
- An experimental study can be done to assess the effectiveness of CAI and online registration regarding organ donation among the public.

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